CA-IDMS®/Task Analyzer

User Guide

15.0

Computer Associates™

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Contents

How to Use This Manual

What this manual contains

The CA-IDMS/Task Analyzer User Guide is a reference tool. It provides complete information on how to use CA-IDMS/Task Analyzer. Organized into several sections, this guide will help answer your questions quickly and easily.

How this manual is organized

Chapter	Description
1	Presents a summary of CA-IDMS/Task Analyzer capabilities. It includes an overview of CA-IDMS/Task Analyzer reports.
2	Serves as a general reference to CA-IDMS/Task Analyzer reports and as a preview of them for selecting parameters.
3	Contains complete information on selecting parameters for generating CA-IDMS/Task Analyzer reports. Defaults are shown as well as syntax rules and notation conventions.
4	Describes the CA-IDMS/Task Analyzer statistics plan options and provides operations JCL for all operating environments.
5	Lists all informative, error, and fatal messages along with reasons for occurrence and suggested actions.
Appendix A	Provides JCL for the CA-Culprit procedure used in CA-IDMS/Task Analyzer.
Appendix B	Provides a description of the External Request Element extension.
Index	Provides an alphabetical list of CA-IDMS/Task Analyzer terms and concepts with their locations.

Chapter 1. General Information

CA-IDMS/Task Analyzer is a CA-IDMS/DC task reporting utility. Using information taken from the CA-IDMS Log (or optionally under OS/390, the SMF File), CA-IDMS/Task Analyzer generates reports detailing and summarizing CA-IDMS/DC task performance.

1.1 General Information Overview

CA-IDMS/Task Analyzer is a CA-IDMS/DC task reporting utility. Using multiple CA-IDMS exits, CA-IDMS/Task Analyzer gathers statistics on programs, CA-ADS dialogs, tasks, and integrated indexes and writes these statistics to the CA-IDMS Log (or optionally under OS/390, the SMF File). You can generate a number of reports with a variety of selection criteria.

1.1.1 Evaluating CA-IDMS/Task Analyzer Reports

You can generate up to 15 CA-IDMS log reports with CA-IDMS/Task Analyzer. You can evaluate these reports to determine which ones you want to produce by studying Chapter 2, “System Output” on page 2-1. Another report, the Input Parameter Report, is always produced whenever CA-IDMS/Task Analyzer is run. It lists the parameters you specified and any processing messages.

1.1.2 Selecting CA-IDMS/Task Analyzer Parameters

CA-IDMS/Task Analyzer is parameter-driven: you control the output by supplying the proper parameters which are used as input to a batch job that extracts the information from the CA-IDMS log or SMF file and then formats the information to your specifications. CA-IDMS/Task Analyzer parameters let you select the report types you want to produce, the level of detail, the kind of detail, the time interval, as well as other useful selections. Chapter 3, “Parameters” on page 3-1 describes all the parameters in detail.

1.1.3 Statistics Plan Options

CA-IDMS/Task Analyzer has an online front-end with which you specify options to control the collection and writing of statistics. Selection of these options creates your statistics plan for CA-IDMS/Task Analyzer. One of the main features of the statistics plan is the ability to assign a Plan ID to any collection run. If you make changes to CA-IDMS/DC (e.g. maintenance tapes, new applications) and assign a different Plan ID to the collection run, you can generate reports by the new Plan ID and compare them to reports of other collection runs. Chapter 4, “Operations” on page 4-1 describes these options in detail. It also provides operating instructions for running the batch jobs that extract information and produce the reports.

1.2 CA-IDMS/Task Analyzer Reports and Functions

CA-IDMS/Task Analyzer produces seven major types of log reports, including:

- **Billing Reports**—Three Billing Reports relate CA-IDMS/DC statistics to users. The CA-IDMS/Task Analyzer Billing Reports contain statistics from the CA-IDMS Log (or optionally under OS/390, the SMF File) to assist your analysis of system resource use. Depending on the parameters you select, CA-IDMS/DC task activity can be tied to a specific operator, terminal, task code, or group for CA-IDMS/DC, CICS, VM/ESA, or batch transactions.
  - Billing Details Report
  - Billing Summary Report
  - Billing System Summary Report
- **Program Reports**—Three Program Reports contain statistics from the CA-IDMS Log (or optionally under OS/390, the SMF File) providing both detailed and summarized information on system and application programs. These reports provide statistics on terminal reads, writes, and errors; storage acquired, allocated, and kept; and scratch and queue usage.
  - Program Details Report
  - Program Summary Report
  - Program System Summary Report
- **CA-ADS Reports**—Three CA-ADS Reports contain statistics from the CA-IDMS Log (or optionally under OS/390, the SMF File) both detailed and summarized information on CA-ADS dialogs. These reports provide statistics on dialog commands, processes, pageable map use, link levels, and record buffer blocks.
  - CA-ADS Detail Report
  - CA-ADS Summary Report
  - CA-ADS System Summary Report
- **Abend Report**—The Abend Report contains statistics from the CA-IDMS Log (or optionally under OS/390, the SMF File) displaying tasks that abend under CA-IDMS. Information on tasks that abend includes: the CA-IDMS abend code, message number, and severity code.
  - Abend Report
- **Program Loads Report**—The Program Loads Report contains statistics from the CA-IDMS Log (or optionally under OS/390, the SMF File), and lists by task the primary program and all secondary programs called. Both the primary program and secondary programs are identified by name, version, and type; secondary programs are further identified by program, map, table, and subschema. The number of times each secondary program is called during each execution of the task is also presented.

  Program Loads Report

- **Integrated Index Report**—Three Integrated Index Reports contain statistics from the CA-IDMS Log (or optionally under OS/390, the SMF File) providing detailed and summarized information showing how the execution of CA-ADS dialogs affects your current integrated index structure. Unlike the other CA-IDMS/Task Analyzer reports, the Integrated Index Reports provide information on database activity. The reports show how programs and CA-ADS dialogs affect and use integrated indexes.
  - Integrated Index Details Report
  - Integrated Index Summary Report
  - Integrated Index System Summary Report
- **Ranking Report**—The Ranking Report arranges statistics from the CA-IDMS Log (or optionally under OS/390, the SMF File) to compare how your CA-IDMS/DC tasks are using your system resources.
  - Ranking Report

In addition:

- **Input Parameter Report**—Generated dynamically, the Input Parameter Report lists all the parameters you supplied as well as any processing messages.

Chapter 2. System Output

CA-IDMS/Task Analyzer produces seven types of log reports and an input parameter report. Use this chapter as a general reference to CA-IDMS/Task Analyzer reports and as a preview of them for selecting parameters.

2.1 CA-IDMS/Task Analyzer Reports

CA-IDMS/Task Analyzer can produce up to seven types of Log reports:

- **Billing**
- **Program**
- **CA-ADS**
- **Abend**
- **Program Loads**
- **Integrated Index**
- **Ranking**

CA-IDMS/Task Analyzer also produces an Input Parameter Report that lists all parameters input and processed and also presents a list of all messages that were generated during execution.

2.2 About CA-IDMS/Task Analyzer Billing Reports

The Billing Reports use information from the CA-IDMS Log (or, optionally under OS/390, the SMF file) to produce both detailed and summarized report statistics. CA-IDMS/Task Analyzer Billing Reports can serve as supplements to building an effective billing system in your environment. You will get this report by specifying REPORT = BILL on the report parameter statement.

2.2.1 Tying Task Activity to an ID and a Time

Depending on the parameters you choose, task activity can be tied to a specific user, a group of users, a terminal, or a task code. For CA-IDMS/DC tasks, the data reported under the headings OPER-ID, TERM-ID, or TASK CODE comes from the CA-IDMS Log (or, optionally under OS/390, the SMF file). For CICS tasks, this information is taken from the External Request Element (ERE) Extension; the information is available only if GSISVCX was installed.

The CA-IDMS/Task Analyzer Billing Reports present this information within the framework of the time interval you select. Task totals are shown; they are also reflected as a ratio of the system totals (i.e., the percentage of all time units, system resources, and CA-IDMS resources consumed during the specified time interval).

2.2.2 Three Reports: One Set of CA-IDMS Log or

SMF File Statistics

Physically, there are three Billing Reports to choose from. However, it is important to understand that each report is produced from the statistics that are found on the CA-IDMS Log (or, optionally under OS/390, the SMF file). Statistics in the reports are presented in various formats and at two levels of summarization. The Billing Report is available at the detail, summary, and system summary levels.

2.2.3 Hierarchical Nature of Reports

Billing Reports are produced on a hierarchical level: If you ask for the lowest level report (LEVL = DET), you will also receive the higher-level reports. These would include the Billing Summary Report, which summarizes the data of the Billing Details Report (LEVL = SUM), and also the Billing System Summary Report (LEVL = SYS).

2.2.4 Overview of Billing Reports

- **Billing Details Report**--presents detailed information for each task, reported in start time sequence. Depending on the parameter combination selected, this report allows you to identify task activity by operator ID, terminal ID, task code, group ID, or for all tasks.
- **Billing Summary**--records the sum of all tasks invoked by an operator ID, terminal ID, task code, or group ID within the time interval you selected.

- **Billing System Summary**--presents a sum of all Billing Summaries within the time interval you selected.

2.3 CA-IDMS/Task Analyzer Billing Details Report

The CA-IDMS/Task Analyzer Billing Details Report presents a detailed view of the activity of each task activity reported in time sequence, based on the parameters selected. Depending on the parameter combination you select, this report allows you to identify task activity by operator ID, terminal ID, task code, group ID, or for all tasks.

Detailed information about CA-ADS dialogs is presented within separate reports (see 2.10.3, "Overview of CA-ADS Reports" on page 2-26).

You will get the Billing Details Report only if you specify LEVL = DET. In addition, with this specification, you will receive the Billing Summary Report and the Billing System Summary Report.

2.3.1 Report Fields

Here is a description of the various fields that make up the CA-IDMS/Task Analyzer Billing Details Report. Figure 2-1 on page 2-9 shows two possible types of Billing Details Reports CA-IDMS/Task Analyzer will generate.

REPORT TITLE--The title line of this report varies depending on what you select on the RUNAME and NAME parameter statements.

REQUESTED TIME INTERVAL--This line lists the start and stop date and time of the time interval you specified on the PROCESS statement. The data displayed in this line depends on what you select using the START and STOP parameters.

ACTUAL INTERVAL--This line lists the first start date and time and the last start date and time on the CA-IDMS Log or SMF File reported on. The data displayed in this line depends upon the actual time range of task activity within the CA-IDMS Log or SMF File.

VARIABLE COLUMNS--These two columns vary in content. Any combination of OPER-ID, TERM-ID, or TASK CODE can appear in the first two columns. (RUNAME types that do not appear in the REPORT TITLE will appear in these two columns.)

TASK INFORMATION

- **NUMBER**--Number of the task within the date and time interval selected.
- **VER**--Version of the task. Multiple versions of a task are reported separately.
- **TY**--Type of task performed, indicating the language of the program the task invokes.
  - **A**: Assembler
  - **C:** COBOL
  - **N**: CA-ADS

  - **P**: PL/1
  - **F**: Fortran
- **OR**--Origin of the task. The operating system or environment where execution of the task originated.
  - **D**: CA-IDMS/DC
  - **C**: CICS
  - **V**: VM/ESA
  - **B**: batch
- **START DATE-TIME**--The start date and time of the task being reported.
- **C C**--Condition code for CA-IDMS. If the task abends while running under CA-IDMS, an "X" appears on the report under "C C". If the task does not abend while running under CA-IDMS, the "C C" column is blank.

TOTAL TIME

- **WALL CLOCK**--The total elapsed real time, in seconds, reported to the nearest 1/10,000 second.
- **WAIT**--Wait time, in seconds, reported to the nearest 1/10,000 second; this is the total idle time during the processing of the reported task, when no CPU time is used by either CA-IDMS or the programs that make up the task.
- **SYSTEM**--System time, in seconds, reported to the nearest 1/10,000 second; this is CPU time used by CA-IDMS to process the reported task.
- **USER**--User time, in seconds, reported to the nearest 1/10,000 second; this is CPU time used by the user's programs that make up the reported task.
- **TOTAL CPU**--Total CPU time used by the task, in seconds, reported to the nearest 1/10,000 second.

TOTAL I/O--Total number of database input/output operations performed by the programs that make up the reported task.

TOTAL DB CALLS--Total number of DML verbs executed: this is the total number of calls issued to the database by programs that make up the reported task.

TOTAL STOR ALLOC--Total amount of storage (in bytes) allocated for the reported task.

TOTAL TERM I/O--Total number of terminal input/output operations performed by the programs that make up the reported task.

CV NUMBER--The number of the CV that the statistics on this report apply to.

PLAN ID--The statistics plan ID that the statistics on this report apply to.

```
 ID                    RELEASE                          CA-IDMS/TASK ANALYZER            DATE                   TIME          PAGE
                       Rnn.nn                               BILLING REPORT               mm/dd/yy               hh:mm:ss

 CV NUMBER:   19       PLAN ID:  PLAN0001            DETAILS FOR TASK CODE     ALL TASKS

                                                  REQUESTED:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm
                                                     ACTUAL:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm


   TASK    TERM     --------------TASK-------------------  ---------------TOTAL TIME--------------   ------------TOTAL---------
   CODE     ID      NUMBER    VER  T O  START  DATE-TIME C  WALL      WAIT    SYSTEM    USER    TOTAL      I/O   DB     STOR   TERM
                                   Y R                   C  CLOCK                                CPU             CALLS  ALLOC   I/O

 KENNIRPT  $$ERUS$$ 928       0    B 04/14     10:04:13  7.3436      5.1182  2.2313    0.0000  2.2313     280   830    2092
 RENIRPT   $$ERUS$$ 1444      0    B 04/14     10:39:14  21.1460     17.4493 3.7523    0.0000  3.7523     471   1282   2092
 RENIRPT   $$ERUS$$ 1445      0    B 04/14     10:39:38  12.5564     9.1094  3.4533    0.0000  3.4533     449   1273   2092
 KENNIRPT  $$ERUS$$ 1716      0    B 04/14     11:38:57  7.5575      6.5246  1.0389    0.0000  1.0389     209   325    2092
 RENIRPT   $$ERUS$$ 1724      0    B 04/14     11:56:18  20.9679     17.4246 3.5498    0.0000  3.5498     474   1284   2092
 RENIRPT   $$ERUS$$ 1725      0    B 04/14     11:56:41  8.5056      5.1226  3.3894    0.0000  3.3894     456   1276   2092
 CMPCARLA  $$ERUS$$ 1794      0    B 04/14     12:17:50  19.1619     13.7269 5.4441    0.0000  5.4441     522   2206   2092
 CMPCARLA  $$ERUS$$ 1996      0    B 04/14     12:57:32  20.8920     15.7378 5.9779    0.0000  5.9779     595   2424   2092
 SGSJARPT  $$ERUS$$ 2072      0    B 04/14     13:30:33  21.3424     18.8502 2.5037    0.0000  2.5037     258   947    2092
 CMPCARLA  $$ERUS$$ 3139      0    B 04/14     15:38:03  21.9847     15.8351 6.1585    0.0000  6.1585     614   2522   2092
 CMPCARLA  $$ERUS$$ 3142      0    B 04/14     15:38:26  10.9512     7.6122  3.3453    0.0000  3.3453     387   1307   2092
```

Figure 2-1. Billing Detail Reports

2.4 CA-IDMS/Task Analyzer Billing Summary Report

The CA-IDMS/Task Analyzer Billing Summary Report summarizes all tasks executed for an operator ID, terminal ID, task code, or group ID within the time interval you select. It is a summary of information from the CA-IDMS/Task Analyzer Billing Details Report.

You will get this report if you specify LEVL = SUM (or if you specify LEVL = DET). In addition to the Billing Summary Report, you will also receive the Billing System Summary Report.

When you look at the Billing Summary Report, focus on the % OF SYSTEM OCCURRENCES in the last column, as shown in the example in Figure 2-2 on page 2-12. These statistics reveal trends on the use of your CA-IDMS/DC environment. HIGH VALUE, LOW VALUE, MEAN VALUE, and ACCUMULATED VALUE are reported for each statistical category.

2.4.1 Report Fields

Here is an explanation of the fields that make up the CA-IDMS/Task Analyzer Billing Summary Report.

REPORT TITLE--The title line of this report varies depending on what you selected on the RUNAME and NAME parameter statements.

REQUESTED TIME INTERVAL--This line lists the start and stop date/time of the time interval you specified on the PROCESS statement. The data displayed in this line depends on what you select using the START and STOP parameters.

ACTUAL INTERVAL--This line lists the first start date and time and the last start date and time on the CA-IDMS Log or SMF File reported on. The data displayed in this line depends upon the actual time range of task activity within the CA-IDMS Log or SMF File.

SUMMARY FOR TASK CODE--Task code identification information; this includes task name, origin of execution, and version number. Multiple versions of a task are reported separately; tasks with multiple origins of execution are also reported separately.

TOTAL RUN UNITS--The total number of occurrences of the reported task (within the time interval selected).

TOTAL ABENDS--The total number of abends that occurred as a result of processing the programs that make up the reported task (within the date and time interval selected).

SYSTEM RESOURCES--as reported within the Billing Details Report.

- **WALL CLOCK TIME**--The total elapsed real time, in seconds, reported to the nearest 1/10,000 second.
- **CPU TIME**--Total CPU time used by the task, in seconds, reported to the nearest 1/10,000 second; this is the sum of SYSTEM time and USER time.
- **SYSTEM TIME**--System time, in seconds, reported to the nearest 1/10,000 second; this is CPU time used by CA-IDMS to process the reported task.
- **USER TIME**--User time, reported to the nearest 1/10,000 second; this is CPU time used by the user's programs to perform the reported task.
- **WAIT TIME**--Wait time, in seconds, reported to the nearest 1/10,000 second; this is the total idle time during the processing of the reported task, when no CPU time is used by either CA-IDMS or the programs that make up the task.
- **I/O**--Total number of database input/output operations performed by the programs that make up the reported task.
- **DATABASE CALLS**--Total number of DML verbs executed: this is the total number of calls issued to the database by programs that make up the reported task.
- **STORAGE ALLOCATED**--Total amount of storage allocated (in bytes) for the reported task.
- **TERMINAL I/O**--Total number of terminal input/output operations performed by the programs that make up the reported task.

HIGH VALUE--The highest value for each of the SYSTEM RESOURCES (depending upon the line) for the reported task.

TASK CODE--The task code of the task with the highest value of the SYSTEM RESOURCES (depending upon the line).

TASK NUM--Task number; this is the version number of the task with the highest value of the SYSTEM RESOURCES.

LOW VALUE--The lowest value for each of the SYSTEM RESOURCES for the reported task.

TASK CODE--The task code of the task with the lowest value of the SYSTEM RESOURCES (depending upon the line).

TASK NUM--Task number; this is the version number of the task with the lowest value of the SYSTEM RESOURCES.

MEAN VALUE--Average value per task occurrence within the reported SYSTEM RESOURCES.

ACCUM VALUE--Total value for all task occurrences for the SYSTEM RESOURCES (depending upon the line) within the reported time interval.

% OF SYSTEM OCCURRENCES--This ratio (expressed as a percentage) is the accumulated value for this task against the accumulated value for all system tasks within the reported time interval. This ratio highlights the tasks that are consuming the largest amount of system resources.

SUMMARY FOR ALL TASKS--When the task has two or more versions or origins of execution, or both, a SUMMARY FOR ALL TASKS is produced. The summary lists high, low, mean, and accumulated values, as well as percent of system occurrences, for all tasks as identified by version and origin of execution.

```
ID                  RELEASE              CA-IDMS/TASK ANALYZER              DATE            TIME                    PAGE
                   Rnn.nn                   BILLING REPORT                mm/dd/yy        hh:mm:ss

                                                SUMMARY FOR ALL TASKS

                                             REQUESTED:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm
                                                ACTUAL:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm

                            HIGH       TASK      TASK          LOW      TASK          TASK         MEAN       ACCUM  % OF SYSTEM
                            VALUE      CODE      NUMBER        VALUE    CODE          NUMBER       VALUE      VALUE  OCCURRENCE

SUMMARY FOR TASK CODE SGSJARPT ORIGIN BTCH VERSION   0

   TOTAL RUN UNITS                                                                                              1          0.05
   TOTAL ABENDS                                                                                                 0          0.00
   WALL CLOCK TIME          21.3424     SGSJARPT  2072          21.3424  SGSJARPT      2072         21.342400  21.3424    0.33
   CPU TIME                 2.5037      SGSJARPT  2072          2.5037   SGSJARPT      2072         2.503700   2.5037     0.17
   SYSTEM TIME              2.5037      SGSJARPT  2072          2.5037   SGSJARPT      2072         2.503700   2.5037     0.27
   USER TIME                0.0000      SGSJARPT  2072          0.0000   SGSJARPT      2072         0.000000   0.0000     0.00
   WAIT TIME                18.8502     SGSJARPT  2072          18.8502  SGSJARPT      2072         18.850200  18.8502    0.38
   I/O                      258         SGSJARPT  2072          258      SGSJARPT      2072         258.00     258        0.65
   DATABASE CALLS           947         SGSJARPT  2072          947      SGSJARPT      2072         947.00     947        0.32
   STORAGE ALLOCATED        20928       SGSJARPT  2072          20928    SGSJARPT      2072         20928.00   20928      0.02
   TERMINAL I/O             0           SGSJARPT  2072          0        SGSJARPT      2072         0.00       0          0.00

SUMMARY FOR ALL TASKS

   TOTAL RUN UNITS                                                                                              11         0.57
   TOTAL ABENDS                                                                                                  0         0.00
   WALL CLOCK TIME          21.9847     CMPCARLA  3139          7.3436   KENNIRPT      928          15.673564  172.4092   2.65
   CPU TIME                 6.1585      CMPCARLA  3139          1.0389   KENNIRPT      1716         3.713136   40.8445    2.71
   SYSTEM TIME              6.1585      CMPCARLA  3139          1.0389   KENNIRPT      1716         3.713136   40.8445    4.33
   USER TIME                0.0000      CMPCARLA  1794          0.0000   CMPCARLA      1794         0.000000   0.0000     0.00
   WAIT TIME                18.8502     SGSJARPT  2072          5.1182   KENNIRPT      928          12.046445  132.5109   2.64
   I/O                      614         CMPCARLA  3139          209      KENNIRPT      1716         428.64     4715       11.81
   DATABASE CALLS           2522        CMPCARLA  3139          325      KENNIRPT      1716         1425.09    15676      5.33
   STORAGE ALLOCATED        20928       CMPCARLA  1794          20928    CMPCARLA      1794         20928.00   230208     0.26
   TERMINAL I/O             0           CMPCARLA  1794          0        CMPCARLA      1794         0.00       0          0.00
```

Figure 2-2. Billing Summary Reports

2.5 CA-IDMS/Task Analyzer Billing System Summary Report

The CA-IDMS/Task Analyzer Billing System Summary Report presents a sum-total of all Billing Summaries within the time interval you select. All statistical categories are reported within run-unit origin: CA-IDMS/DC, CICS, VM/ESA, and BATCH; or ALL. The report shows actual accumulated values for RUN UNITS, ABENDS, and SYSTEM RESOURCES and presents the percentage that each value is of total system resources.

You will get this report by specifying LEVL = SYS. (This report will also be created if you specify LEVL = DET or LEVL = SUM.)

When you review this report, focus on % of SYSTEM OCCURRENCES in the last column, as shown in Figure 2-3 on page 2-15. These statistics reveal trends on the the use of your CA-IDMS/DC environment. HIGH VALUE, LOW VALUE, MEAN VALUE, and ACCUMULATED VALUE are reported for each statistical category.

2.5.1 Report Fields

Here is a description of the various fields that make up the System Summary Report.

REPORT TITLE--The title line of this report varies depending on what you selected on the RUNAME and NAME parameter statements.

REQUESTED TIME INTERVAL--This line lists the start and stop date/time of the time interval you specified on the PROCESS statement. The data displayed in this line depends on what you select using the START and STOP parameters.

ACTUAL INTERVAL--This line lists the first start date and time and the last start date and time on the CA-IDMS Log or SMF File reported on. The data displayed in this line depends upon the actual time range of task activity within the CA-IDMS Log or SMF File.

SUMMARY FOR ALL TASKS--This line indicates that a summarization of statistics follows.

TOTAL RUN UNITS--The total number of run-units performed by programs that make up the reported task (within the time interval selected).

TOTAL ABENDS--The total number of abends that occurred as a result of processing the programs that make up the reported task (within the date and time interval selected).

SYSTEM RESOURCES: The CA-IDMS/DC statistics are reported. For a detailed explanation of the CA-IDMS/DC statistics, see 2.3, “CA-IDMS/Task Analyzer Billing Details Report” on page 2-7.

- **WALL CLOCK TIME**

- **CPU TIME**
- **SYSTEM TIME**
- **USER TIME**
- **WAIT TIME**
- **I/O**
- **DATABASE CALLS**
- **STORAGE ALLOCATED**
- **TERMINAL I/O**

HIGH VALUE--The highest value for each of the SYSTEM RESOURCES (depending upon the line) for the reported task.

TASK CODE--The ID of the task with the highest value of the SYSTEM RESOURCES (depending upon the line).

TASK NUM--Task number; this is the number of the task with the highest value of the SYSTEM RESOURCES.

LOW VALUE--The lowest value for each of the SYSTEM RESOURCES for the reported task.

TASK CODE--The ID of the task with the lowest value of the SYSTEM RESOURCES (depending upon the line).

TASK NUM--Task number; this is the number of the task with the highest value of the SYSTEM RESOURCES.

MEAN VALUE--Average value per program occurrence within the reported SYSTEM RESOURCES.

ACCUM VALUE--Total value for all program occurrences for the SYSTEM RESOURCES (depending upon the line) within the reported time interval.

% OF SYSTEM OCCURRENCES--This ratio (expressed as a percentage) is the accumulated value for this program against the accumulated value for all selected programs active within the reported time interval. This ratio highlights the programs that are consuming the largest amount of system resources.

```
ID                  RELEASE                        CA-IDMS/TASK ANALYZER          DATE                   TIME           PAGE
                   Rnn.nn                         SYSTEM SUMMARY REPORT          mm/dd/yy               hh:mm:ss

                                                              BILLING SUMMARY

                                                       REQUESTED:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm
                                                          ACTUAL:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm

                      HIGH         TASK       TASK           LOW     TASK           TASK          MEAN        ACCUM  % OF SYSTEM
                      VALUE        CODE       NUMBER         VALUE   CODE           NUMBER        VALUE       VALUE   OCCURRENCE

SUMMARY FOR ALL TASKS

TOTAL RUN UNITS                                                                                                11          0.5
TOTAL ABENDS                                                                                                    0          0.0
WALL CLOCK TIME       21.9847     CMPCARLA   3139          7.3436  KENNIRPT          928      15.673564     172.4092        2.6
CPU TIME               6.1585     CMPCARLA   3139          1.0389  KENNIRPT         1716       3.713136      40.8445        2.7
SYSTEM TIME            6.1585     CMPCARLA   3139          1.0389  KENNIRPT         1716       3.713136      40.8445        4.3
USER TIME               .0000     KENNIRPT   928            .0000  CMPCARLA         3142       0.000000       0.0000        0.0
WAIT TIME             18.8502     SGSJARPT   2072          5.1182  KENNIRPT          928      12.046445     132.5109        2.6
I/O                  614          CMPCARLA   3139        209       KENNIRPT         1716     428.64        4715            11.8
DATABASE CALLS      2522          CMPCARLA   3139        325       KENNIRPT         1716    1425.09       15676             5.3
STORAGE ALLOCATED  20928          KENNIRPT   928       20928       CMPCARLA         3142   20928.00      230208             0.2
TERMINAL I/O           0          KENNIRPT   928           0       CMPCARLA         3142       0.00           0             0.0
```

Figure 2-3. Billing System Summary Report.

2.6 About CA-IDMS/Task Analyzer Program Reports

The CA-IDMS/Task Analyzer Program Reports are similar to the CA-IDMS/Task Analyzer Billing Reports. They use information from the CA-IDMS Log (or, optionally under OS/390, from the SMF file) to offer detailed and summarized statistical reports that show how efficiently application programs are using system resources.

They differ in that they are organized by the programs that make up the tasks. Information about the application program is grouped by selected time intervals. Identifying information includes the program's name, version, type, and origin of execution. First, each program's totals are reported; then, they are reflected as a ratio of the system totals (i.e., the percentage of all system resources consumed during the time interval by programs that were selected by CA-IDMS/Task Analyzer). You will get this report by specifying REPORT = PROG.

2.6.1 Three Reports: One Set of CA-IDMS Log or SMF File Statistics

Physically, there are three Program Reports to choose from. It is important to understand, however, that each report is produced from the same statistics taken from the CA-IDMS Log (or, optionally under OS/390, from the SMF file). Statistics are presented in different formats and at various levels of summarization. The Program Report is available at the detail, summary, and system summary level.

2.6.2 Hierarchical Nature of Reports

Program reports are produced for three hierarchical levels: If you ask for the lowest level report (LEVL = DET), you will also receive the higher-level reports. This would include the Program Summary Report, which summarizes the data of the Program Details Reports (LEVL = SUM), and also the Program System Summary Report (LEVL = SYS).

2.6.3 Overview of Program Reports

- **Program Details Report**--shows the information for programs that make up each task reported in time sequence, within the selected time interval. You may specify which program or class of programs CA-IDMS/Task Analyzer is to report on. You also control the time period.
- **Program Summary Report**--records the sum for all tasks that use the application program within the time interval you select. In addition, if multiple versions of a reported task exist, a summary of all tasks by version is presented.
- **Program System Summary**--presents a sum of all Program Summaries within the time interval you selected.

2.7 CA-IDMS/Task Analyzer Program Details Report

The CA-IDMS/Task Analyzer Program Details Report presents a detailed view of application program CA-IDMS/DC activity. (CA-ADS dialog activity is reported separately. See 2.10, “About CA-IDMS/Task Analyzer CA-ADS Reports” on page 2-26.). The statistics in the report are CA-IDMS STATISTICS taken from the CA-IDMS Log (or, optionally under OS/390, from the SMF file). You will get this report when you request LEVL = DET.

Request this report after you have used the Billing Report to identify tasks that require large amounts of storage or that perform a large number of I/O operations.

2.7.1 Report Fields

Here is a description of the various fields that make up the CA-IDMS/Task Analyzer Program Details Report (see Figure 2-4 on page 2-19).

REPORT TITLE--The title line of this report varies depending on what you select on the RUNAME and NAME parameter statements.

REQUESTED TIME INTERVAL--This line lists the start and stop date/time of the time interval you specified on the PROCESS statement. The data displayed in this line depends on what you select using the START and STOP parameters.

ACTUAL INTERVAL--This line lists the first start date and time and the last start date and time on the CA-IDMS Log or SMF File reported on. The data displayed in this line depends upon the actual time range of task activity within the CA-IDMS Log or SMF File.

VARIABLE COLUMNS--These two columns vary in content. Any combination of OPER-ID, TERM-ID, or TASK CODE can appear in the first two columns. (RUNAME types that do not appear in the REPORT TITLE will appear in these two columns.)

TASK INFORMATION

- **NUMBER**--Number of the task within the date and time interval selected.
- **TY**--Type of task performed, indicating the language of the program the task invokes.
  - **A**: Assembler
  - **P**: PL/1
  - **C**: COBOL
  - **F**: Fortran
  - **N**: CA-ADS

- **OR**--Origin of the task. The operating system or environment where execution of the task originated.
  - **D**: CA-IDMS/DC
  - **C**: CICS
  - **V:** VM/ESA
  - **B**: batch
- **START DATE-TIME**--The start date and time of the task being reported.
- **C C**--Condition code for CA-IDMS. If the task abends while running under CA-IDMS, an "X" appears on the report under "C C". If the task does not abend while running under CA-IDMS, the "C C" column is blank.

PROGRAM INFORMATION

- **NAME**--Name of the reported program.
- **VER**--Version of the program.
- **TY**--Type of program performed, according to the language that the program consists of (see the list under TASK INFORMATION).

TERMINAL INFORMATION

- **RDS**--The total number of reads performed from the reported terminal.
- **WRT**--The total number of writes performed from the reported terminal.
- **ERR**--The total number of errors occurring during reads and writes from the reported terminal.

STORAGE INFORMATION--These columns give you an idea of how much system storage is required for the reported tasks.

- **ACQ**--The number of requests made to acquire system storage.
- **ALLOC**--The total amount of storage requested (in bytes).
- **KEPT**--The total amount of storage (in bytes) retained by the program and not released for reuse.

SCRATCH INFORMATION

- **GET**--The number of times records were retrieved from the scratch area.
- **PUT**--The number of times records were placed into the scratch area.
- **DELETE**--The number of times records were deleted from the scratch area.

QUEUE INFORMATION

- **GET**--The number of times records were retrieved from the queue area.
- **PUT**--The number of times records were placed into the queue area.
- **DELETE**--The number of times records were deleted from the queue area.

*****--Programs loaded and executed by the previous task (see Figure 2-4 on page 2-19).

CV NUMBER--The number of the CV that the statistics on this report apply to.

PLAN ID--The statistics plan ID that the statistics on this report apply to.

```
ID                    RELEASE                        CA-IDMS/TASK ANALYZER              DATE              TIME              PAGE
                     Rnn.nn                             PROGRAM REPORT                  mm/dd/yy          hh:mm:ss

CV NUMBER:   19        PLAN ID:  PLAN0001                  DETAILS FOR TASK CODE     ALL TASKS

                                                              REQUESTED:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm
                                                                 ACTUAL:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm

  TASK      TERM   ------------TASK--------------    ---PROGRAM----   --TERMINAL--  ----STORAGE----    --SCRATCH---  ---QUEUE----
  CODE       ID    NUMBER   T  O  START DATE-TIME C    NAME     VER T   RDS WRT  ERR  ACQ  ALLOC KEPT    GET PUT  DEL  GET  PUT DEL
                           Y  R                  C                 Y

SYSGEN     VTAMLT05    71   A  D  04/14 08:50:30      RHDCSGDC    1 A    0   1    0   17  84544  1792   9    7    2
SYSGEN     VTAMLT05    72   A  D  04/14 08:50:39      RHDCSGDC    1 A    0   1    0   17  84544  1792   9    7    2
SYSGEN     VTAMLT05    74   A  D  04/14 08:50:53      RHDCSGDC    1 A    0   1    0   15  84160  1792   9    7    2
SYSGEN     VTAMLT05    76   A  D  04/14 08:51:01      RHDCSGDC    1 A    0   1    0    8  26688  1792   5    2    2
SYSGEN     VTAMLT05    78   A  D  04/14 08:51:03      RHDCSGDC    1 A    0   0    0   11  38144     0   4    2    5
TRCREPD1   VTAMLT03    80   N  D  04/14 08:51:15      TRCREPD1    1 N    0   1    0   21  27392 13568   0    0    0
                                  * ►                 TRCREPD1    1 N    1   1    0   24  28032     0   0    0    0
                                                      TRCDELD1    1 N    0   0    0    7  26752     0   0    0    0    0    0    0
TRCDELD1   VTAMLT03    86   N  D  04/14 08:52:13      TRCDELD1    1 N    0   1    0   18  18496 13568   0    0    0  4
                                                      TRCDELD1    1 N    0   0    0    1  17920     0   0    0    0    0    0    0
                                                      ADST        1 N    0   0    0    3  18496     0   0    0    0  239    0    0
ADST       VTAMLT03    91   N  D  04/14 08:52:57      ADST        1 N    0   1    0   24  28800 15552   0    0    0  2
                                                      ADST        1 N    1   1    0   11  18496     0   0    0    0  239    0    0
                                                      TRCQUED1    1 N    0   0    0   10  26752     0   0    0    0  241    0    0
TRCQUED1   VTAMLT03    94   N  D  04/14 08:53:51      TRCQUED1    1 N    0   1    0    7  14016 15552   0    0    0
                                                      TRCQUED1    1 N    1   1    0   24  28800     0   0    0    0  241    0    0
TRCQUED1   VTAMLT03    97   N  D  04/14 08:53:59      TRCQUED1    1 N    0   1    0    8  12608 13568   0    0    0
                                                      TRCQUED1    1 N    2   2    0   32  28800     0   0    0    0  241    0    0
                                                      ADST        1 N    0   0    0    0      0     0   0    0    0    0    0    0
ADST       VTAMLT03    98   N  D  04/14 08:54:02      ADST        1 N    0   1    0   12  19840 15552   0    0    0  2
                                                      ADST        1 N    1   1    0    8  12608     0   0    0    0    0    0    0
                                                      TRCQUED1    1 N    0   0    0    4  19840     0   0    0    0  241    0    0
TRCQUED1   VTAMLT03   101   N  D  04/14 08:54:20      TRCQUED1    1 N    0   1    0   11  17600 15552   0    0    0  2
                                                      TRCQUED1    1 N    1   1    0   16  19840     0   0    0    0  483  238    0
TRCQUED1   VTAMLT03   103   N  D  04/14 08:54:51      TRCQUED1    1 N    0   1    0   12  19072 14784   0    0    0  4
                                                      TRCQUED1    1 N    2   2    0   24  19840     0   0    0    0  483  238    0
                                                      TRCREPD1    1 N    0   0    0    4  19072     0   0    0    0  493    0    0
TRCREPD1   VTAMLT03   105   N  D  04/14 08:55:09      TRCREPD1    1 N    0   1    0    9  13568 14208   0    0    0
                                                      TRCREPD1    1 N    1   1    0   12  19072     0   0    0    0  493    0    0
                                                      TRCDELD1    1 N    0   0    0    1  10304     0   0    0    0    0    0    0
TRCDELD1   VTAMLT03   106   N  D  04/14 08:55:17      TRCDELD1    1 N    0   1    0   18  18432 13824   0    0    0
                                                      TRCDELD1    1 N    0   0    0    1  11072     0   0    0    0    0    0    0
                                                      ADST        1 N    0   0    0    3  18432     0   0    0    0    1    0    0
ADSOGEN1   VTAMLTO4   121   A  D  04/14 08:55:49      ADSOGEN1    1 A    0   1    0   13  31104  6144   0   00    0
ADSOGEN1   VTAMLT04   122   A  D  04/14 08:55:53      ADSOGEN1    1 A    0   1    0   31  56128 10176   0    0    0
```

Figure 2-4. Program Detail Report

2.8 CA-IDMS/Task Analyzer Program Summary Report

The CA-IDMS/Task Analyzer Program Summary Report summarizes all executions of the first application program within the reported task within a time interval. The CA-IDMS/Task Analyzer Program Summary Report summarizes information taken from the CA-IDMS/Task Analyzer Program Details Report. You will get this report by specifying LEVL = SUM (or LEVL = DET).

When you look at the CA-IDMS/Task Analyzer Program Summary Totals Report, focus on the high, low, mean, and accumulated values, and percent (%) of system occurrences. These statistics reveal trends on the efficiency and use of your application programs.

2.8.1 Report Fields

Here is an explanation of the fields that make up the Program Summary Report (see Figure 2-5 on page 2-22).

REPORT TITLE--The title line of this report varies depending on what you selected on the RUNAME and NAME parameter statements.

REQUESTED TIME INTERVAL--This line lists the start and stop date/time of the time interval you specified on the PROCESS statement. The data displayed in this line depends on what you select using the START and STOP parameters.

ACTUAL INTERVAL--This line lists the first start date and time and the last start date and time on the CA-IDMS Log or SMF File reported on. The data displayed in this line depends upon the actual time range of task activity within the CA-IDMS Log or SMF File.

SUMMARY FOR TASK CODE--Task code identification information; this includes task name, origin of execution, and version number. Multiple versions of a task are reported separately; tasks with multiple origins of execution are also reported separately.

TOTAL RUN UNITS--The total number of run-units performed by programs that make up the reported task (within the time interval selected).

TOTAL ABENDS--The total number of abends that occurred as a result of processing the programs that make up the reported task (within the date and time interval selected).

SYSTEM RESOURCES: The CA-IDMS/DC statistics are reported. For a detailed explanation of the CA-IDMS/DC statistics, see the 2.7, “CA-IDMS/Task Analyzer Program Details Report” on page 2-17.

- **TERMINAL READS**
- **TERMINAL WRITES**

- **TERMINAL ERRORS**
- **STORAGE ACQUIRED**
- **STORAGE ALLOCATED**
- **STORAGE KEPT**
- **SCRATCH-GETS**
- **SCRATCH-PUTS**
- **SCRATCH DELETES**
- **QUEUE-GETS**
- **QUEUE-PUTS**
- **QUEUE-DELETES**

HIGH VALUE--The highest value for each of the SYSTEM RESOURCES (depending upon the line) for the reported task

TASK CODE--The ID of the task with the highest value of the SYSTEM RESOURCES (depending upon the line).

TASK NUMBER--Task number; this is the number of the task with the highest value of the SYSTEM RESOURCES.

LOW VALUE--The lowest value for each of the SYSTEM RESOURCES for the reported task.

TASK CODE--The ID of the task with the lowest value of the SYSTEM RESOURCES.

TASK NUMBER--Task number; this is the number of the task with the highest value of the SYSTEM RESOURCES.

MEAN VALUE--Average value per program occurrence within the reported SYSTEM RESOURCES.

ACCUM VALUE--Total value for all program occurrences for the SYSTEM RESOURCES within the reported time interval.

% OF SYSTEM OCCURRENCES--This ratio (expressed as a percentage) is the accumulated value for this program against the accumulated value for all selected programs active within the reported time interval. This ratio highlights the programs that are consuming the largest amount of system resources.

```
ID                RELEASE                  CA-IDMS/TASK ANALYZER              DATE                  TIME                 PAGE
                  Rnn.nn                     PROGRAM REPORT                   mm/dd/yy              hh:mm:ss

                                                    SUMMARY FOR ALL TASKS

                                  REQUESTED:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm
                                     ACTUAL:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm

                   HIGH    TASK  TASK     LOW     TASK   TASK     MEAN   ACCUM   % OF SYSTEM
                   VALUE   CODE  NUMBER   VALUE   CODE   NUMBER   VALUE  VALUE   OCCURRENCES

SUMMARY FOR TASK CODE OEDR0001 ORIGIN IDMS   VERSION   1

TOTAL RUN UNITS                                                                    40   2.08
TOTAL ABENDS                                                                        0   0.00
TERMINAL READS        2  OEDR0001  892      0   OEDR00013326      1.03        41   1.53
TERMINAL WRITES       3  OEDR0001  892      0   OEDR00011719      2.00        80   1.88
TERMINAL ERRORS       0  OEDR0001  890      0   OEDR00013326      0.00         0   0.00
STORAGE ACQUIRED     56  OEDR0001  934     11   OEDR00013305     18.05       722   1.01
STORAGE ALLOCATED 52480  OEDR0001  934  11328   OEDR00011719  31976.00   1279040   1.46
STORAGE KEPT      21952  OEDR0001 3312    256   OEDR00012595  17204.80    688192   3.84
SCRATCH - GETS        0  OEDR0001  890      0   OEDR00013326      0.00         0   0.00
SCRATCH - PUTS        0  OEDR0001  890      0   OEDR00013326      0.00         0   0.00
SCRATCH - DELETES     0  OEDR0001  890      0   OEDR00013326      0.00         0   0.00
QUEUE   - GETS        0  OEDR0001  890      0   OEDR00013326      0.00         0   0.00
QUEUE   - PUTS        0  OEDR0001  890      0   OEDR00013326      0.00         0   0.00
QUEUE   - DELETES     0  OEDR0001  890      0   OEDR00013326      0.00         0   0.00

SUMMARY FOR TASK CODE OEDR0002 ORIGIN IDMS   VERSION   1

TOTAL RUN UNITS                                                                    61   3.18
TOTAL ABENDS                                                                        0   0.00
TERMINAL READS        6  OEDR0002 1689      0   OEDR00022744      1.95       119   4.45
TERMINAL WRITES       7  OEDR0002 1689      0   OEDR00022744      2.93       179   4.20
TERMINAL ERRORS       0  OEDR0002  900      0   OEDR00023324      0.00         0   0.00
STORAGE ACQUIRED     18  OEDR0002 2744      7   OEDR00022577      8.79       536   0.75
STORAGE ALLOCATED 28672  OEDR0002 2488  11328   OEDR00022744  17179.28   1047936   1.20
STORAGE KEPT      21888  OEDR0002 3309    256   OEDR00022744  18762.49   1144512   6.39
SCRATCH - GETS        0  OEDR0002  900      0   OEDR00023324      0.00         0   0.00
SCRATCH - PUTS        0  OEDR0002  900      0   OEDR00023324      0.00         0   0.00
SCRATCH - DELETES     0  OEDR0002  900      0   OEDR00023324      0.00         0   0.00
QUEUE   - GETS        0  OEDR0002  900      0   OEDR00023324      0.00         0   0.00
QUEUE   - PUTS        0  OEDR0002  900      0   OEDR00023324      0.00         0   0.00
QUEUE   - DELETES     0  OEDR0002  900      0   OEDR00023324      0.00         0   0.00

SUMMARY FOR TASK CODE OLM         ORIGIN IDMS   VERSION   1

TOTAL RUN UNITS                                                                   858  44.71
TOTAL ABENDS                                                                        1  33.33
TERMINAL READS        1  OLM       146      0   OLM     3350      0.12       107   4.00
TERMINAL WRITES       1  OLM        11      0   OLM     3350      0.96       823  19.33
TERMINAL ERRORS       0  OLM        11      0   OLM     3350      0.00         0   0.00
STORAGE ACQUIRED    639  OLM      1387      4   OLM     3350     53.28     45712  63.92
STORAGE ALLOCATED116352  OLM      1367  12352   OLM     3350  61847.27  53064960  60.59
STORAGE KEPT       6784  OLM      2063      0   OLM     3029   3088.78   2650176  14.80
```

Figure 2-5. Program Summary Report.

2.9 CA-IDMS/Task Analyzer Program System Summary Report

The CA-IDMS/Task Analyzer Program System Summary Report presents a sum-total of all Program Summaries within the time interval you select. All statistical categories are reported within run-unit origin: CA-IDMS/DC, CICS, VM/ESA, and BATCH; or ALL. The report shows actual accumulated values for RUN UNITS, ABENDS, and SYSTEM RESOURCES, and presents the percentage that each value is of total system resources.

You will get this report by specifying LEVL = SYS. (This report will also be created if you specify LEVL = DET or LEVL = SUM.)

When you review this report, focus on % of SYSTEM OCCURRENCES in the last column, as shown in Figure 2-6 on page 2-25. These statistics reflect trends on the use of your CA-IDMS/DC environment. HIGH VALUE, LOW VALUE, MEAN VALUE, and ACCUMULATED VALUE are reported for each statistical category.

2.9.1 Report Fields

Here is a description of the various fields that make up the Program System Summary Report.

REPORT TITLE--The title line of this report varies depending on what you selected on the RUNAME and NAME parameter statements.

REQUESTED TIME INTERVAL--This line lists the start and stop date/time of the time interval you specified on the PROCESS statement. The data displayed in this line depends on what you select using the START and STOP parameters.

ACTUAL INTERVAL--This line lists the first start date and time and the last start date and time on the CA-IDMS Log or SMF File reported on. The data displayed in this line depends upon the actual time range of task activity within the CA-IDMS Log or SMF File.

SUMMARY FOR ALL REQUESTED ENTITIES--This line indicates that a summarization of statistics follows.

TOTAL RUN UNITS--The total number of run-units performed by programs that make up the reported task (within the time interval selected).

TOTAL ABENDS--The total number of abends that occurred as a result of processing the programs that make up the reported task (within the date and time interval selected).

SYSTEM RESOURCES: The CA-IDMS/DC statistics are reported. For a detailed explanation of the CA-IDMS/DC statistics, see 2.7, “CA-IDMS/Task Analyzer Program Details Report” on page 2-17.

- **TERMINAL READS**
- **TERMINAL WRITES**
- **TERMINAL ERRORS**
- **STORAGE ACQUIRED**
- **STORAGE ALLOCATED**
- **STORAGE KEPT**
- **SCRATCH-GETS**
- **SCRATCH-PUTS**
- **SCRATCH-DELETES**
- **QUEUE-GETS**
- **QUEUE-PUTS**
- **QUEUE-DELETES**

HIGH VALUE--The highest value for each of the SYSTEM RESOURCES (depending upon the line) for the reported task.

TASK CODE--The ID of the task with the highest value of the SYSTEM RESOURCES (depending upon the line).

TASK NUMBER--Task number; this is the number of the task with the highest value of the SYSTEM RESOURCES.

LOW VALUE--The lowest value for each of the SYSTEM RESOURCES for the reported task.

TASK CODE--The ID of the task with the lowest value of the SYSTEM RESOURCES (depending upon the line).

TASK NUMBER--Task number; this is the number of the task with the highest value of the SYSTEM RESOURCES.

MEAN VALUE--Average value per program occurrence within the reported SYSTEM RESOURCES.

ACCUM VALUE--Total value for all program occurrences for the SYSTEM RESOURCES (depending upon the line) within the reported time interval.

% OF SYSTEM OCCURRENCES--This ratio (expressed as a percentage) is the accumulated value for this program against the accumulated value for all selected programs active within the reported time interval. This ratio highlights the programs that are consuming the largest amount of system resources.

```
ID            RELEASE                              CA-IDMS/TASK ANALYZER            DATE              TIME          PAGE
              Rnn.nn                               SYSTEM SUMMARY REPORT            mm/dd/yy          hh:mm:s

                                                          PROGRAM SUMMARY

                                  REQUESTED:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm
                                     ACTUAL:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm

                    HIGH    TASK    TASK   LOW     TASK   TASK     MEAN     ACCUM    % OF SYSTEM
                    VALUE   CODE    NUMBER VALUE   CODE   NUMBER   VALUE    VALUE    OCCURRENCES

SUMMARY FOR ALL TASKS

TOTAL RUN UNITS                                                                1919     100.00
TOTAL ABENDS                                                                      3     100.00
TERMINAL READS        62   TRCREPD1  460     0   ADSO@ML$  3354      1.39     2676     100.00
TERMINAL WRITES       63   TRCREPD1  460     0   DCMT      3352      2.22     4258     100.00
TERMINAL ERRORS        0   QUED        2     0   ADSO@ML$  3355      0.00        0       0.00
STORAGE ACQUIRED    1022   DADQD150  373     4   OLM       3350     37.27    71514     100.00
STORAGE ALLOCATED266816   ADSOGEN1  359  5696   BYE       2921  45634.90 87573376     100.00
STORAGE KEPT     120064   ADSOGEN1 1373     0   ADSOGEN1  3287   9334.36 17912640     100.00
SCRATCH - GETS        71   ADSOGEN1 1373     0   ADSO@ML$  3355      0.27      510     100.00
SCRATCH - PUTS        79   ADSOGEN1  359     0   ADSO@ML$  3355      0.86     1651     100.00
SCRATCH - DELETES     79   ADSOGEN1  359     0   ADSO@ML$  3355      0.81     1553     100.00
QUEUE   - GETS      2148   TRCREPD1  658     0   ADSO@ML$  3355     47.33    90818     100.00
QUEUE   - PUTS       476   TRCQUED1  101     0   ADSO@ML$  3355      1.45     2773     100.00
QUEUE   - DELETES      4   OLM       489     0   ADSO@ML$  3355      0.48      916     100.00
```

Figure 2-6. Program System Summary Report.

2.10 About CA-IDMS/Task Analyzer CA-ADS Reports

The CA-IDMS/Task Analyzer CA-ADS Reports are available for reporting on dialogs. They use information from the CA-IDMS Log (or, optionally under OS/390, from the SMF file) to offer detailed and summarized statistical reports that show how efficiently CA-ADS dialogs are using system resources.

The CA-ADS Reports are organized by the CA-ADS dialogs that make up the tasks. Information about the CA-ADS dialog is grouped by selected time intervals. Identifying information includes the dialog's name, version, type, and origin of execution. First, each dialog's totals are reported, then they are reflected as a ratio of the system totals (i.e., the percentage of all system resources used during the time interval by dialogs that were selected by CA-IDMS/Task Analyzer).

You will get this report by specifying REPORT = ADSO.

2.10.1 Three Reports: One Set of CA-IDMS Log or SMF File Statistics

Physically, there are three CA-ADS Reports to choose from. It is important, however, to understand that each report is produced from the same statistics taken from the CA-IDMS Log (or, optionally under OS/390, from the SMF file). Statistics are presented in different formats and at various levels of summarization. The CA-ADS Report is available at the detail, summary, and system summary level.

2.10.2 Hierarchical Nature of Reports

Program reports are produced for three hierarchical levels: if you ask for the lowest level report (LEVL = DET), you will also receive the higher-level reports. This would include the CA-ADS Summary Report, which summarizes the data of the CA-ADS Details Reports (LEVL = SUM), and also the CA-ADS System Summary Report (LEVL = SYS).

2.10.3 Overview of CA-ADS Reports

- **CA-ADS Details Report**--shows the information for CA-ADS dialogs that make up each task reported in time sequence, within the selected time interval. You may specify which dialog or class of dialogs CA-IDMS/Task Analyzer is to report on. You also control the time period and duration of the time interval.
- **CA-ADS Summary Report**--records the sum for all tasks that use the CA-ADS dialog within the time interval you select. In addition, if multiple versions of a reported task exist, a summary of all tasks by version is presented.
- **CA-ADS System Summary**--presents a sum of all CA-ADS Summaries within the time interval you selected.

2.11 CA-IDMS/Task Analyzer CA-ADS Details Report

The CA-IDMS/Task Analyzer CA-ADS Details Report is produced for CA-ADS dialogs. The CA-ADS Details Report presents a detailed view of the activity of each task that is a CA-ADS dialog. The CA-ADS dialogs are identified by CA-ADS dialog name and version, and are reported in time sequence.

You will get the CA-ADS Details Report only if you specify LEVL = DET. In addition, with this specification, you will receive the CA-ADS Summary Report and the CA-ADS System Summary Report.

2.11.1 Report Fields

Here is a description of the various fields that make up the CA-IDMS/Task Analyzer CA-ADS Details Report. A sample report is shown in Figure 2-7 on page 2-29.

REPORT TITLE--The title line of this report varies depending on the RUNAME specified and on the dialog name and version number you select on the NAME parameter statement.

REQUESTED TIME INTERVAL--This line lists the start and stop date/time of the time interval you specified on the PROCESS statement. The data displayed in this line depends on what you select using the START and STOP parameters.

ACTUAL INTERVAL--This line lists the first start date and time and the last start date and time on the CA-IDMS Log or SMF File reported on. The data displayed in this line depends upon the actual time range of task activity within the CA-IDMS Log or SMF File.

VARIABLE COLUMNS--These two columns vary in content. Any combination of OPER-ID, TERM-ID, or TASK CODE can appear in the first two columns. (RUNAME types that do not appear in the REPORT TITLE will appear in these two columns.)

TASK INFORMATION--Identifying information about the reported task.

- **NUMBER**--Number of the task within the date and time interval selected.
- **VER**--Version of the task. Multiple versions of a task are reported separately.
- **OR**--Origin of the task. The operating system or environment where execution of the task originated.
- **D**: CA-IDMS/DC
- **C**: CICS
- **V**: VM/ESA
- **B:** batch
- **START DATE-TIME**--The start date and time of the task being reported.

- **C C**--Condition code for CA-IDMS. If the task abends while running under CA-IDMS, an "X" appears on the report under "C C". If the task does not abend while running under CA-IDMS, the "C C" column is blank.

DIALOG INFORMATION

- **NAME**--The name of each dialog contained within the reported task.
- **VER**--The version of the dialog.

INTER DIALOG--This is a summary of all commands issued by the CA-ADS dialog.

- **DSP**--The number of display and display continue commands issued by the dialog.
- **INV**--The number of invoke commands issued by the dialog.
- **LNK**--The number of link to dialog and link to program commands issued by the dialog.
- **RET**--The number of return and return continue commands issued by the dialog.
- **TRN**--The number of transfer commands issued by the dialog.
- **LEV**--The number of leave CA-ADS and leave applications commands issued by the dialog.

PRCS--Premap and response processes.

- **PRE MAP**--The number of premap processes.
- **RSP**--The number of response processes.

DETAIL--These statistics show the amount of processing performed using the Pageable Maps feature.

- **PUT NEW**--The number of writes to the Detail scratch area.
- **PUT CUR**--The number of rewrites to the Detail scratch area.
- **GET**--The number of reads from the Detail scratch area.

LINK--Link levels.

- **HGH**--The highest level in the associated CA-ADS transaction at which the reported task was executed.
- **LOW**--The lowest level in the associated CA-ADS transaction at which the reported task was executed.

RBB--Record buffer block.

- **MAX**--The maximum size (in bytes) of record buffer blocks allocated.
- **MIN**--The minimum, or least, size (in bytes) of record buffer blocks allocated.

CV NUMBER--The number of the CV that the statistics on this report apply to.

PLAN ID--The statistics plan ID that the statistics on this report apply to.

```
ID              RELEASE                          CA-IDMS/TASK ANALYZER          DATE              TIME            PAGE
                Rnn.nn                             ADSO REPORT                mm/dd/yy          hh:mm:ss

CV NUMBER:   19     PLAN ID:  PLAN0001                                DETAILS FOR TASK CODE     ADSA

                                                          REQUESTED:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm
                                                             ACTUAL:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm

OPER TERM  --------------TASK-----------------  --DIALOG--  ----INTER DIALOG-------   --PRCS--  ----DETAIL----  --LINK---   ---RBB-
ID    ID   NUMBER  VER  O  START  DATE-TIME  C  NAME    VER  DSP INV LNK RET TRN LEV   PRE  RSP  PUT   PUT  GET  HGH   LOW   MAX   M
                        R                    C                                          MAP        NEW   CUR

   VTAMLT02  1504   1   D  04/17  16:15:15     ADSA     1    1   0   0   0   0   0    0    1    0     0    0    0     0
   VTAMLT02  1505   1   D  04/17  16:15:28     ADSA     1    1   0   0   0   0   0    0    1    0     0    0    0     0
   VTAMLT02  1506   1   D  04/17  16:16:03     ADSA     1    1   1   0   0   0   0    1    0    0     0    0    0     0
                                               ADSOASVC 1    0   0   0   0   1   0    0    0    0     0    0    1     1    4288  42
                                               ADSOAREC 1    1   0   0   0   0   0    0    0    0     0    0    1     1    5400  54
   VTAMLT02  1511   1   D  04/17  16:19:11     ADSA     1    1   0   0   0   0   0    0    1    0     0    0    0     0
   VTAMLT02  1514   1   D  04/17  16:21:41     ADSA     1    1   0   0   0   0   0    0    1    0     0    0    0     0
   VTAMLT02  1516   1   D  04/17  16:22:17     ADSA     1    1   1   0   0   0   0    1    0    0     0    0    0     0
                                               ADSOASVC 1    0   0   0   0   1   0    0    0    0     0    0    1     1    4288  42
                                               ADSOAREC 1    1   0   0   0   0   0    0    0    0     0    0    1     1    5400  54
```

Figure 2-7. CA-ADS Details Report

2.12 CA-IDMS Task Analyzer CA-ADS Summary Report

The CA-IDMS/Task Analyzer CA-ADS Summary Report is produced for CA-ADS dialogs. The CA-ADS Summary Report summarizes activity within the specified time period for all DC run-units (tasks) that are also CA-ADS dialogs. The summaries are presented for all dialogs by version numbers.

You will get the CA-ADS Summary Report if you specify LEVL = SUM (or if you specify LEVL = DET).

When you look at the CA-ADS Summary Report, focus on the % OF SYSTEM OCCURRENCES in the last column, as shown in Figure 2-8 on page 2-32. These statistics reveal trends on the the use of your CA-IDMS/DC environment. HIGH VALUE, LOW VALUE, MEAN VALUE, and ACCUMULATED VALUE are reported for each statistical category.

2.12.1 Report Fields

Here is a description of the various fields that make up the CA-IDMS/Task Analyzer CA-ADS Summary Report. (See Figure 2-8 on page 2-32).

REPORT TITLE--The title line of this report varies depending on what you selected on the RUNAME and NAME parameter statements.

REQUESTED TIME INTERVAL--This line lists the start and stop date/time of the time interval you specified on the PROCESS statement. The data displayed in this line depends on what you select using the START and STOP parameters.

ACTUAL INTERVAL--This line lists the first start date and time and the last start date and time on the CA-IDMS Log or SMF File reported on. The data displayed in this line depends upon the actual time range of task activity within the CA-IDMS Log or SMF File.

SUMMARY FOR VERSION--The version number of the dialog. Summaries of multiple versions of a dialog are reported separately.

TOTAL RUN UNITS--The total number of DC run-units (tasks) terminated within the reported time interval.

TOTAL ABENDS--The total number of abends that occurred as a result of processing the reported tasks within the date and time interval selected.

CA-ADS Dialog Statistics--The CA-ADS dialog statistics are reported (taken from the CA-ADS Details Report).

- **DISPLAY**--The number of display and display continue commands issued by the task.
- **INVOKE**--The number of invoke commands issued by the task.

- **LINK**--The number of link to dialog and link to program commands issued by the task.
- **RETURN**--The number of return and return continue commands issued by the task.
- **TRANSFER**--The number of transfer commands issued by the task.
- **LEAVE**--The number of leave CA-ADS and leave applications commands issued by the task.
- **PROCESS - PREMAP**--The number of premap processes.
- **PROCESS - RESPONSE**--The number of response processes.
- **DETAIL - PUT NEW**--The number of writes occurring to the Detail scratch area.
- **DETAIL - PUT CUR**--The number of records rewritten to the Detail scratch area.
- **DETAIL - GET**--The number of details retrieved from the Detail scratch area.
- **LINK LEVL - MAX**--The highest level in the associated CA-ADS transaction at which the reported task was executed.
- **LINK LEVL - MIN**--The lowest level in the associated CA-ADS transaction at which the reported task was executed.
- **RBB STORAGE - MAX**--The maximum size (in bytes) of record buffer blocks buffers allocated.
- **RBB STORAGE - MIN**--The minimum, or least, size (in bytes) of record buffer blocks allocated.

HIGH VALUE--The highest value for each of the CA-ADS Dialog Statistics for the reported task (depending upon the line).

TASK CODE--The task code of the task with the highest value of the CA-ADS Dialog Statistics (depending upon the line).

TASK NUMBER--Task number; this is the version number of the task with the highest value of the CA-ADS Dialog Statistics (depending upon the line).

LOW VALUE--The lowest value for each of the CA-ADS Dialog Statistics for the reported task (depending upon the line).

TASK CODE--The task code of the task with the lowest value of the CA-ADS Dialog Statistics (depending upon the line).

TASK NUMBER--Task number; this is the version number of the task with the lowest value of the CA-ADS Dialog Statistics (depending upon the line).

MEAN VALUE--Average value per DC run-unit occurrence within the reported CA-ADS Dialog Statistics (depending upon the line).

ACCUM VALUE--Total value for all DC run-unit occurrences for the CA-ADS Dialog Statistics (depending upon the line) within the reported time interval.

% OF SYSTEM OCCURRENCES--This ratio (expressed as a percentage) is the accumulated value for this DC run-unit (CA-ADS dialog) against the accumulated value for all selected DC run-units active within the reported time interval. This ratio highlights the DC run-units that are consuming the largest amount of system resources.

```
ID              RELEASE                          CA-IDMS/TASK ANALYZER          DATE            TIME              PAGE
                Rnn.nn                                 ADSO REPORT            mm/dd/yy        hh:mm:ss

                                                 SUMMARY FOR ALL TASKS    ADSA

                                      REQUESTED:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm
                                         ACTUAL:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm

                    HIGH     TASK   TASK     LOW      TASK   TASK     MEAN    ACCUM   % OF SYSTEM
                    VALUE    CODE   NUMBER   VALUE    CODE   NUMBER   VALUE   VALUE   OCCURRENCES

SUMMARY FOR TASK CODE ADSA      ORIGIN IDMS   VERSION   1

   TOTAL RUN UNITS                                                                3      0.24
   TOTAL ABENDS                                                                   0      0.00
   DISPLAY             2      ADSA    1506      1      ADSA  1505        1.33      4      0.81
   INVOKE              0      ADSA    1504      0      ADSA  1506        0.00      0      0.00
   LINK                0      ADSA    1504      0      ADSA  1506        0.00      0      0.00
   RETURN              0      ADSA    1504      0      ADSA  1506        0.00      0      0.00
   TRANSFER            1      ADSA    1506      0      ADSA  1505        0.33      1      7.69
   LEAVE               1      ADSA    1506      0      ADSA  1505        0.33      1      0.62
   PROCESS - PREMAP    1      ADSA    1506      0      ADSA  1505        0.33      1      0.23
   PROCESS - RESPONSE  0      ADSA    1504      0      ADSA  1506        0.00      0      0.00
   DETAIL - PUT NEW    0      ADSA    1504      0      ADSA  1506        0.00      0      0.00
   DETAIL - PUT CUR    0      ADSA    1504      0      ADSA  1506        0.00      0      0.00
   DETAIL - GET        0      ADSA    1504      0      ADSA  1506        0.00      0      0.00
   LINK LEVEL - MAX    2      ADSA    1506      0      ADSA  1505        0.67      2      0.68
   LINK LEVEL - MIN    2      ADSA    1506      0      ADSA  1505        0.67      2      0.74
   RBB STORAGE - MAX13976     ADSA    1506   4288      ADSA  1505     7517.33  22552      0.72
   RBB STORAGE - MIN13976     ADSA    1506   4288      ADSA  1505     7517.33  22552      0.73
```

Figure 2-8. CA-ADS Summary Report

2.13 CA-IDMS/Task Analyzer CA-ADS System Summary Report

The CA-IDMS/Task Analyzer CA-ADS System Summary Report presents a sum-total of all CA-ADS Summaries within the time interval you select. All statistical categories are reported within run-unit type: CA-IDMS/DC, CICS, and VM/ESA; or ALL.

You will get this report by specifying LEVL = SYS. (This report will also be created if you specify LEVL = DET or LEVL = SUM.)

When you review this report, focus on % of SYSTEM OCCURRENCES in the last column, as shown in Figure 2-9 on page 2-35. These statistics reflect trends on the use of your CA-IDMS/DC environment. HIGH VALUE, LOW VALUE, MEAN VALUE, and ACCUMULATED VALUE are reported for each statistical category.

2.13.1 Report Fields

Here is a description of the various fields that make up the CA-ADS System Summary Report.

REPORT TITLE--The title line of this report varies depending on what you selected on the RUNAME and NAME parameter statements.

REQUESTED TIME INTERVAL--This line lists the start and stop date/time of the time interval you specified on the PROCESS statement. The data displayed in this line depends on what you select using the START and STOP parameters.

ACTUAL INTERVAL--This line lists the first start date and time and the last start date and time on the CA-IDMS Log or SMF File reported on. The data displayed in this line depends upon the actual time range of task activity within the CA-IDMS Log or SMF File.

SUMMARY FOR ALL REQUESTED ENTITIES--This line indicates that a summarization of statistics follows.

TOTAL RUN UNITS--The total number of run-units performed by programs that make up the reported task (within the time interval selected).

TOTAL ABENDS--The total number of abends that occurred as a result of processing the programs that make up the reported task (within the date and time interval selected).

SYSTEM RESOURCES: The CA-IDMS/DC statistics are reported. For a detailed explanation of the CA-IDMS/DC statistics, see 2.11, “CA-IDMS/Task Analyzer CA-ADS Details Report” on page 2-27.

- **DISPLAY**
- **INVOKE**

- **LINK**
- **RETURN**
- **TRANSFER**
- **LEAVE**
- **PROCESS - PREMAP**
- **PROCESS - RESPONSE**
- **DETAIL - PUT NEW**
- **DETAIL - PUT CUR**
- **DETAIL - GET**
- **LINK LEVEL - MAX**
- **LINK LEVEL - MIN**
- **RBB STORAGE - MAX**
- **RBB STORAG - MIN**

HIGH VALUE--The highest value for each of the SYSTEM RESOURCES (depending upon the line) for the reported task.

TASK CODE--The ID of the task with the highest value of the SYSTEM RESOURCES (depending upon the line).

TASK NUM--Task number; this is the number of the task with the highest value of the SYSTEM RESOURCES.

LOW VALUE--The lowest value for each of the SYSTEM RESOURCES for the reported task.

TASK CODE--The ID of the task with the lowest value of the SYSTEM RESOURCES (depending upon the line).

TASK NUM--Task number; this is the number of the task with the highest value of the SYSTEM RESOURCES.

MEAN VALUE--Average value per program occurrence within the reported SYSTEM RESOURCES.

ACCUM VALUE--Total value for all program occurrences for the SYSTEM RESOURCES (depending upon the line) within the reported time interval.

% OF SYSTEM OCCURRENCES--This ratio (expressed as a percentage) is the accumulated value for this program against the accumulated value for all selected programs active within the reported time interval. This ratio highlights the programs that are consuming the largest amount of system resources.

```
ID              RELEASE                              CA-IDMS/TASK ANALYZER          DATE              TIME             PAGE
                Rnn.nn                               SYSTEM SUMMARY REPORT          mm/dd/yy          hh:mm:ss

                                                          ADSO SUMMARY

                                      REQUESTED:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm
                                         ACTUAL:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm

                    HIGH    TASK  TASK     LOW     TASK   TASK     MEAN   ACCUM   % OF SYSTEM
                    VALUE   CODE  NUMBER   VALUE   CODE   NUMBER   VALUE  VALUE   OCCURRENCES

SUMMARY FOR REQUESTED ENTITIES

TOTAL RUN UNITS                                                                3      0.24
TOTAL ABENDS                                                                   0      0.00
DISPLAY                 2   ADSA   1506      1     ADSA  1505       1.33      4      0.81
INVOKE                  0   ADSA   1504      0     ADSA  1506       0.00      0      0.00
LINK                    0   ADSA   1504      0     ADSA  1506       0.00      0      0.00
RETURN                  0   ADSA   1504      0     ADSA  1506       0.00      0      0.00
TRANSFER                1   ADSA   1506      0     ADSA  1505       0.33      1      7.69
LEAVE                   1   ADSA   1506      0     ADSA  1505       0.33      1      0.62
PROCESS - PREMAP        1   ADSA   1506      0     ADSA  1505       0.33      1      0.23
PROCESS - RESPONSE      0   ADSA   1504      0     ADSA  1506       0.00      0      0.00
DETAIL - PUT NEW        0   ADSA   1504      0     ADSA  1506       0.00      0      0.00
DETAIL - PUT CUR        0   ADSA   1504      0     ADSA  1506       0.00      0      0.00
DETAIL - GET            0   ADSA   1504      0     ADSA  1506       0.00      0      0.00
LINK LEVEL - MAX        2   ADSA   1506      0     ADSA  1505       0.67      2      0.68
LINK LEVEL - MIN        2   ADSA   1506      0     ADSA  1505       0.67      2      0.74
RBB STORAGE - MAX   13976   ADSA   1506   4288     ADSA  1505    7517.33  22552      0.72
RBB STORAGE - MIN   13976   ADSA   1506   4288     ADSA  1505    7517.33  22552      0.73
```

Figure 2-9. CA-ADS System Summary Report

2.14 About CA-IDMS/Task Analyzer Abend Report

The CA-IDMS/Task Analyzer Abend Report uses information from the CA-IDMS Log (or, optionally under OS/390, the SMF file) to produce detailed report statistics. The Abend Report reports on those tasks that have abended while running under CA-IDMS, whether or not the tasks have issued database calls. (If a task abends while running under CA-IDMS, an "X" appears under "C C" on the Billing Details, Program Details, CA-ADS Details, or Program Loads report.) You will get the Abend Report by specifying REPORT = ABND on the parameter statement.

2.14.1 Tying Abend Activity to an ID and a Time

Depending on the parameters you choose, abend activity can be tied to a specific operator, terminal, task code, or group. For CA-IDMS/DC tasks, the data reported under the headings OPER-ID, TERM-ID, or TASK CODE comes from the CA-IDMS Log (or, optionally under OS/390, the SMF file). For CICS tasks, this information is taken from the External Request Element (ERE) Extension; the information is available only if GSISVCX was installed.

The CA-IDMS/Task Analyzer Abend Report presents this information within the framework of the time interval you select. Task, time, and error message information is shown.

2.14.2 One Report: One Set of CA-IDMS Log Statistics

Physically, there is one Abend Report. The report is produced from the statistics that are found on the CA-IDMS Log (or, optionally under OS/390, the SMF file). Statistics in the Abend Report are presented at the detail level.

2.14.3 Overview of Abend Reports

Abend Report--presents detailed information for each task that abends while running under CA-IDMS, reported in termination time sequence. Depending on the parameter combination selected, this report allows you to identify task activity by terminal ID, operator ID, task code, or group name.

2.15 CA-IDMS/Task Analyzer Abend Report

The CA-IDMS/Task Analyzer Abend Report presents a detailed view of the activity of each task that abended while running under CA-IDMS, reported in time sequence and based on the parameters selected. Depending on the parameter combination you select, this report allows you to identify by terminal ID, operator ID, task code, or program name tasks that abended while running under CA-IDMS.

You will get the Abend Report only if you specify LEVL = DET.

2.15.1 Report Fields

Here is a description of the various fields that make up the CA-IDMS/Task Analyzer Abend Details Report. Figure 2-10 on page 2-38 shows one possible type of Abend Report CA-IDMS/Task Analyzer will generate.

REPORT TITLE--The title line of this report varies depending on what you selected on the RUNAME and NAME parameter statements.

REQUESTED TIME INTERVAL--This line lists the start and stop date/time of the time interval you specified on the PROCESS statement. The data displayed in this line depends on what you select using the START and STOP parameters.

ACTUAL INTERVAL--This line lists the first start date and time and the last start date and time on the CA-IDMS Log or SMF File reported on. The data displayed in this line depends upon the actual time range of task activity within the CA-IDMS Log or SMF File.

VARIABLE COLUMNS--These two columns vary in content. Any combination of OPER-ID, TERM-ID, or TASK CODE can appear in the first two columns. (RUNAME types that do not appear in the REPORT TITLE will appear in these two columns.)

TASK INFORMATION

- **NUMBER**--Number of the task within the date and time interval selected.
- **VER**--Version of the task.
- **TYPE**--Type of task performed, indicating the language of the program the task invokes.
- **ASSEM**: Assembler
- **COBOL**: COBOL
- **ADSO**: CA-ADS
- **PL1**: PL/1
- **FTRAN**: Fortran

- **ORG**--Origin of the task. The operating system or environment where execution of the task originated.
- **IDMS**: CA-IDMS/DC
- **CICS**: CICS
- **VM/ESA**: VM/ESA
- **BTCH**: batch
- **START DATE-TIME**--The start date and time of the task being reported.

MESSAGE INFORMATION

ABEND CODE--The return code received from CA-IDMS.

MESSAGE NUMBER--The CA-IDMS message number.

SEVR CODE--The severity code of the CA-IDMS message, ranging from 0-3.

ABEND SUMMARY--The total number of abends that occurred during the execution of the reported task.

CV NUMBER--The number of the CV that the statistics on this report apply to.

PLAN ID--The statistics plan ID that the statistics on this report apply to.

```
ID              RELEASE                              CA-IDMS/TASK ANALYZER              DATE              TIME           PAGE
                Rnn.nn                                   ABEND REPORT                  mm/dd/yy          hh:mm:ss

CV NUMBER:  19   PLAN ID:  PLAN0001                          DETAILS FOR TASK CODE    ALL TASKS

                                                        REQUESTED:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm
                                                           ACTUAL:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm

   TASK         TERM         ------------------------TASK-----------------------------------              ABEND       MESSAGE      SEVR
   CODE         ID           NUMBER   VER      TYPE       ORG        START        DATE-TIME              CODE        NUMBER       CODE

 OLM            VTAMLT02     2299       1      ASSEM      IDMS       04/14        14:05:37               D0002         027
 ADSO@ML$       VTAMLT02     2616       1      ADSO       IDMS       04/14        14:32:23               D0002         027
 ADSO@MS$       VTAMLT06     3156       1      ADSO       IDMS       04/14        15:40:32               D0002         027


 *****      3 ABENDS FOR TASK CODE    ALL TASKS
```

Figure 2-10. Abend Report

2.16 About CA-IDMS/Task Analyzer Program Loads Report

The CA-IDMS/Task Analyzer Program Loads Report uses information from the CA-IDMS Log (or, optionally under OS/390, the SMF file) to produce detailed report statistics. The Program Loads Report reports on the primary program and secondary programs (including tables, maps, and subschemas) that a task loads (calls). You will get the Program Loads Report by specifying REPORT=LOAD on the parameter statement.

2.16.1 Tying Task Activity to an ID and a Time

Depending on the parameters you choose, abend activity can be tied to a specific operator, terminal, task code, or group. The data reported under the headings OPER-ID, TERM-ID, or TASK CODE comes from the CA-IDMS Log (or, optionally under OS/390, from the SMF file.)

For CICS, this information is taken from the External Request Element (ERE) Extension as it is built by the CA-IDMS SVC exit routine. The CA-IDMS/Task Analyzer Program Loads Report presents this information within the framework of the time interval you select. Task, time, and error message information is shown.

2.16.2 One Report: One Set of CA-IDMS Log Statistics

Physically, there is one Program Loads Report. The report is produced from the statistics that are found on the CA-IDMS Log or, optionally under OS/390, the SMF file. Statistics in the Program Loads Report are presented at the detail level.

2.16.3 Overview of Program Loads Reports

- **Program Loads Details Report**--presents for each specified task the primary program and all secondary programs (including tables, maps, and subschemas), reported in termination time sequence. Depending on the parameter combination selected, this report allows you to identify task activity by terminal ID, operator ID, task code, group name, or for all tasks.

2.17 CA-IDMS/Task Analyzer Program Loads Report

The CA-IDMS/Task Analyzer Program Loads Report presents a detailed view of the primary program and all secondary programs (including tables, maps, and subschemas) that a task loads (calls). The tasks are identified by task code, and are reported in time sequence. You will get the Program Loads Report only if you specify LEVL = DET.

2.17.1 Report Fields

Here is a description of the various fields that make up the CA-IDMS/Task Analyzer Program Loads Report. A sample report is shown in Figure 2-11 on page 2-42.

REPORT TITLE--The title line of this report varies depending on what you selected on the RUNAME and NAME parameter statements.

REQUESTED TIME INTERVAL--This line lists the start and stop date/time of the time interval you specified on the PROCESS statement. The data displayed in this line depends on what you select using the START and STOP parameters.

ACTUAL INTERVAL--This line lists the first start date and time and the last start date and time on the CA-IDMS Log or SMF File reported on. The data displayed in this line depends upon the actual time range of task activity within the CA-IDMS Log or SMF File.

VARIABLE COLUMNS--These two columns vary in content. Any combination of OPER-ID, TERM-ID, or TASK CODE can appear in the first two columns. (RUNAME types that do not appear in the REPORT TITLE will appear in these two columns.)

TASK INFORMATION--Identifying information about the task.

- **NUMBER**--Number of the task within the date and time interval selected.
- **VER**--Version of the task. Multiple versions of a task are reported separately.
- **ORG**--Origin of the task. The operating system or environment where execution of the task originated.
- **IDMS**: CA-IDMS/DC
- **CICS**: CICS
- **VM/ESA**: VM/ESA
- **BTCH**: batch
- **START DATE-TIME**--The start date and time of the task being reported.
- **C C**--Condition code for CA-IDMS. If the task abended while running under CA-IDMS, an "X" appears on the report under "C C". If the task did not abend while running under CA-IDMS, the "C C" column is blank.

PRIMARY PROGRAM--Information about the program or dialog initiating the transaction.

- **NAME**--The name of the primary program.
- **VER**--The version of the primary program. Multiple versions are reported separately.
- **TYPE**--Type of task performed, indicating the language of the program the task invokes.
- **ASSEM**: Assembler
- **COBOL**: COBOL
- **ADSO**: CA-ADS
- **FTRAN**: Fortran
- **PL1**: PL/1

SECONDARY PROGRAM--Information about secondary programs (including tables, maps, and subschemas) loaded or linked by the primary program. These statistics reveal what programs are lower level programs within the reported task, and reveal how frequently the lower level programs are loaded or linked.

- **NAME**--The name of the secondary program loaded or linked by the primary program for the reported task.
- **VER**--The version of the secondary program. Multiple versions are listed separately.
- **TYPE**--The type of the secondary program loaded or linked. Multiple types of a secondary program are listed separately.
- **ASSEM**: Assembler
- **COBOL**: COBOL
- **ADSO**: CA-ADS
- **PL1**: PL/1
- **SUBS**: Subschema
- **MAP**: Map
- **FTRAN**: Fortran
- **TABLE**: Table
- **COUNT**--The number of times the secondary program is loaded or linked by the primary program during each execution of the reported task.

CV NUMBER--The number of the CV that the statistics on this report apply to.

PLAN ID--The statistics plan ID that the statistics on this report apply to.

```
ID              RELEASE                    CA-IDMS/TASK ANALYZER              DATE                TIME                PAGE
                Rnn.nn                     PROGRAM LOADS REPORT               mm/dd/yy            hh:mm:ss

CV NUMBER:  19   PLAN ID:  PLAN0001          DETAILS FOR TASK CODE    ADS

                                          REQUESTED:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm
                                             ACTUAL:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm

OPER     TERM     --------------TASK--------------------      ---PRIMARY PROGRAM----  -----------SECONDARY PROGRAM----
  ID      ID      NUMBER    ORG   START    DATE-TIME  CC        NAME   VER   TYPE      NAME      VER   TYPE     COUNT

      VTAMLT04       162    IDMS  04/14    08:57:36          ADSORUN1   1    ASSEM   ADSORUN1    1     ASSEM      1
                                                                                     CDO2NWKS    1     ASSEM      1
                                                                                     RHDCRUAL    0     ASSEM      1
                                                                                     ADSOMENU    1     MAP        1

      VTAMLT04       163    IDMS  04/14    08:57:37          ADSORUN1   1    ASSEM   ADSORUN1    1     ASSEM      1
                                                                                     CDO2NWKS    1     ASSEM      1
                                                                                     RHDCRUAL    0     ASSEM      1
                                                                                     ADSOMENU    1     MAP        1

      VTAMLT01      2039    IDMS  04/14    13:17:43          ADSORUN1   1    ASSEM   ADSORUN1    1     ASSEM      1
                                                                                     CDO2NWKS    1     ASSEM      1
                                                                                     RHDCRUAL    0     ASSEM      1
                                                                                     ADSOMENU    1     MAP        1

      VTAMLT01      2055    IDMS  04/14    13:27:38          ADSORUN1   1    ASSEM   ADSORUN1    1     ASSEM      1
                                                                                     $ACF@TAT    1     TABLE      1
                                                                                     ADSOMAIN    1     ASSEM      1
                                                                                     CDO2NWKS    1     ASSEM      2
                                                                                     RHDCRUAL    0     ASSEM      1
                                                                                     ADSODBUG    1     ASSEM      1
                                                                                     ADSOMBG1    1     MAP        1

      VTAMLT04      2354    IDMS  04/14    14:14:04          ADSORUN1   1    ASSEM   ADSORUN1    1     ASSEM      1
                                                                                     $ACF@TAT    1     TABLE      1
                                                                                     ADSOMAIN    1     ASSEM      1
                                                                                     CDO2NWKS    1     ASSEM      2
                                                                                     RHDCRUAL    0     ASSEM      1
                                                                                     ADSODBUG    1     ASSEM      1
                                                                                     ADSOMBG1    1     MAP        1
```

Figure 2-11. Program Loads Report

2.18 About CA-IDMS/Task Analyzer Integrated Index Reports

The CA-IDMS/Task Analyzer Integrated Index Reports use information from the CA-IDMS Log (or, optionally under OS/390, the SMF file) to produce both detailed and summarized report statistics on how programs affect your integrated indexing structure. The Integrated Index Reports differ from the other CA-IDMS/Task Analyzer reports in that the Integrated Index Reports list database activity. You will get this report by specifying REPORT = INDEX on the parameter statement.

2.18.1 Tying Task Activity to an ID and a Time

Depending on the parameters you choose, task activity can be tied to a specific user, terminal, task code, or group. For CA-IDMS/DC tasks, the data reported under the headings OPER-ID, TERM-ID, or TASK CODE comes from the CA-IDMS Log (or, optionally under OS/390, the SMF file).

For CICS, this information is taken from the External Request Element (ERE) Extension as it is built by the Computer Associates, Inc. version of the CA-IDMS SVC exit routine.

The CA-IDMS/Task Analyzer Integrated Index Reports present this information within the framework of the time interval you select. The effects of task processing upon your current integrated indexing structure are displayed on the report.

2.18.2 Three Reports: One Set of CA-IDMS Log or SMF File

Statistics

Physically, there are three Integrated Index Reports to choose from. However, it is important to understand that each report is produced from the statistics that are found on the CA-IDMS Log (or, optionally under OS/390, the SMF file). Statistics in the reports are presented in various formats and at one level of summarization. The Integrated Index Report is available at the detail, summary, and system summary levels.

2.18.3 Hierarchical Nature of Reports

Integrated Index Reports are produced on a hierarchical level: if you ask for the lowest level report (LEVL = DET), you will also receive the higher-level report, the Integrated Index Summary Report, which summarizes the data of the Integrated Index Details Report (LEVL = SUM), and also the Integrated Index System Summary Report.

2.18.4 Overview of Integrated Index Reports

- **Integrated Index Details Report**--presents detailed information for each task, reported in termination time sequence. Depending on the parameter combination selected, this report allows you to identify task activity by operator ID, terminal ID, task code, group ID, or for all tasks.
- **Integrated Index Summary**--records the sum of all tasks invoked by an operator ID, terminal ID, task code ID, or group ID within the time interval you selected.
- **Integrated Index System Summary**--presents a sum of all Integrated Index Summaries within the time interval you selected.

2.19 CA-IDMS/Task Analyzer Integrated Index Details Report

The CA-IDMS/Task Analyzer Integrated Index Details Report presents a detailed view of the activity of each task activity reported in time sequence, based on the parameters selected. Depending on the parameter combination you select, this report allows you to identify task activity by terminal ID, operator ID, task code, group ID, or for all tasks.

You will get the Integrated Index Details Report only if you specify LEVL = DET. In addition, with this specification, you will receive the Integrated Index Summary Report and the Integrated Index System Summary Report.

2.19.1 Report Fields

Here is a description of the various fields that make up the CA-IDMS/Task Analyzer Integrated Index Details Report. Exhibit 2.12 shows one possible type of Integrated Index Details Reports CA-IDMS/TASK ANALYZER will generate.

REPORT TITLE--The title line of this report varies depending on what you select on the RUNAME and NAME parameter statements.

REQUESTED TIME INTERVAL--This line lists the start and stop date/time of the time interval you specified on the PROCESS statement. The data displayed in this line depends on what you select using the START and STOP parameters.

ACTUAL INTERVAL--This line lists the first start date and time and the last start date and time on the CA-IDMS Log or SMF File reported on. The data displayed in this line depends upon the actual time range of task activity within the CA-IDMS Log or SMF File.

VARIABLE COLUMNS--These two columns vary in content. Any combination of OPER-ID, TERM-ID, or TASK CODE can appear in the first two columns. (RUNAME types that do not appear in the REPORT TITLE will appear in these two columns.)

TASK INFORMATION

- **NUMBER**--Number of the task within the date and time interval selected.
- **VER**--Version of the task. Multiple versions of a task are reported separately.
- **TY**--Type of task performed, indicating the language of the program the task invokes.
- **A**: Assembler
- **C**: COBOL
- **N**: CA-ADS
- **P**: PL/1
- **F**: Fortran

- **OR**--Origin of the task. The operating system or environment where execution of the task originated.
- **D**: CA-IDMS/DC
- **C**: CICS
- **V**: VM/ESA
- **B**: batch
- **START DATE-TIME**--The start date and time of the task being reported.
- **C C**--Condition code for CA-IDMS. If the task abends while running under CA-IDMS, an "X" appears on the report under "C C". If the task does not abend while running under CA-IDMS, the "C C" column is blank.

PROGRAM INFORMATION

- **NAME**--The name of the program invoked by the reported task.
- **VER**--Version of the program. Multiple versions of a program are reported separately.
- **TY**--Type of task performed, indicating the language of the program invoked by the task. **A**: Assembler **C**: COBOL **N**: CA-ADS **P**: PL/1 **F**: Fortran

SR8 INDEX INFORMATION

- **SPLIT**--The number of SR8 record splits that have occurred as a result of processing the reported task.
- **SPAWN**--The number of SR8 record spawns that have occurred as a result of processing the reported task.
- **STORED**--The number of SR8 records stored as result of processing the reported task.
- **ERASED**--The number of SR8 records erased as a result of processing the reported task.

SR7 INDEX INFORMATION

- **STORED**--The number of SR7 records stored as a result of processing the reported task.
- **ERASED**--The number of SR7 records stored as a result of processing the reported task.

B-TREE INFORMATION

- **SEARCH**--The number of searches into the integrated index required to locate the reported task.
- **LEVEL**--The number of levels required to complete the search.

ORPHANS ADOPTED--The number of integrated index orphans adopted as a result of processing the reported task.

*****--Programs loaded and executed by the previous task.

CV NUMBER--The number of the CV that the statistics on this report apply to.

PLAN ID--The statistics plan ID that the statistics on this report apply to.

```
ID              RELEASE                          CA-IDMS/TASK ANALYZER              DATE              TIME              PAGE
                Rnn.nn                          INTEGRATED INDEX REPORT            mm/dd/yy          hh:mm:ss

CV NUMBER:   19        PLAN ID:  PLAN0001          DETAILS FOR TASK CODE     ALL TASKS

                                                 REQUESTED:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm
                                                    ACTUAL:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm

TASK    TERM   ------------TASK------------------ --PROGRAM-----  -----------SR8--------------- -----SR7------- ---B-TREE---  ORPHA
CODE      ID   NUMBER VER T  O  START DATE-TIME C  NAME    VER  T  SPLIT SPAWN   STORED   ERASED STORED   ERASED SEARCH  LEVEL ADOPT
                       Y  R                    C              Y

ASFFDEFD  VTAMLT01  45  1  N  D   04/17 12:29:55  RHDCRUAL   0        0     0        0        0      0        0      0
                                                  IDMSRSUB   1  S     0     0        0        0      0        0    390    781
                                        * ►       IDBCAT     1  A     0     0        0        0      0        0
ASFFDEFD  VTAMLT01  46  1  N  D   04/17 12:30:11  RHDCRUAL   0        0     0        0        0      0        0      0
                                                  IDMSRSUB   1  S     0     0        0        0      0        0    147    298
                                                  IDBCAT     1  A     0     0        0        0      0        0      0      0
ASFRDEFD  VTAMLT01  47  1  N  D   04/17 12:30:26  RHDCRUAL   0        0     0        0        0      0        0      0
                                                  IDMSRSUB   1  S     0     0        0        0      0        0    141    354
                                                  IDBCAT     1  A     0     0        0        0      0        0      0      0
                                                  IDMSRGEN   1  A     4     0        4        0      0        0    472   1219
ASFASELD  VTAMLT01  49  1  N  D   04/17 12:34:03  RHDCRUAL   0        0     0        0        0      0        0      0
                                                  IDMSRSUB   1  S     0     0        0        0      0        0    414    852
ASFDSELD  VTAMLT01  51  1  N  D   04/17 12:34:23  RHDCRUAL   0        0     0        0        0      0        0      0
                                                  RD000231   1  N     0     0        0        0      0        0    139    150
                                                  IDMSRRTM   1  A     0     0        0        0      0        0     17     36
RD000231  VTAMLT01  52  1  N  D   04/17 12:37:38  RHDCRUAL   0        0     0        0        0      0        0      0
                                                  RD000231   1  N     0     0        0        0      0        0      2      2
RD000231  VTAMLT01  53  1  N  D   04/17 12:37:49  RHDCRUAL   0        0     0        0        0      0        0      0
                                                  RD000231   1  N     0     0        0        0      0        0      2      2
RD000231  VTAMLT01  54  1  N  D   04/17 12:37:53  RHDCRUAL   0        0     0        0        0      0        0      0
                                                  RD000231   1  N     0     0        0        0      0        0      2      2
RD000231  VTAMLT01  55  1  N  D   04/17 12:38:00  RHDCRUAL   0        0     0        0        0      0        0      0
                                                  RD000231   1  N     0     0        0        0      0        0      2      2
ASFASELD  VTAMLT01  58  1  N  D   04/17 12:38:27  RHDCRUAL   0        0     0        0        0      0        0      0
                                                  IDMSRSUB   1  S     0     0        0        0      0        0    147    298
                                                  IDBCAT     1  A     0     0        0        0      0        0      0      0
ASFRDEFD  VTAMLT01  59  1  N  D   04/17 12:39:04  RHDCRUAL   0        0     0        0        0      0        0      0
                                                  IDMSRSUB   1  S     0     0        0        0      0        0    279    582
                                                  IDBCAT     1  A     0     0        0        0      0        0      0      0
ASFFDEFD  VTAMLT01  60  1  N  D   04/17 12:39:26  RHDCRUAL   0        0     0        0        0      0        0      0
                                                  IDMSRSUB   1  S     0     0        0        0      0        0    631   1261
                                                  IDBCAT     1  A     0     0        0        0      0        0      0      0
ASFXSELD  VTAMLT01  62  1  N  D   04/17 12:40:16  RHDCRUAL   0        0     0        0        0      0        0      0
                                                  IDMSRSUB   1  S     1     0        1        0      0        0     37     76
                                                  IDBCAT     1  A     0     0        0        0      0        0      0      0
ASFXSELD  VTAMLT01  63  1  N  D   04/17 12:40:30  RHDCRUAL   0        0     0        0        0      0        0      0
                                                  IDMSRSUB   1  S     0     0        0        0      0        0    240    480
                                                  IDBCAT     1  A     0     0        0        0      0        0      0      0
```

Figure 2-12. Integrated Index Details Report

2.20 CA-IDMS/Task Analyzer Integrated Index Summary Report

The CA-IDMS/Task Analyzer Integrated Index Summary Report summarizes all tasks executed for a terminal ID, operator ID, task code, or group within the time interval you select. It is a summary of information from the CA-IDMS/Task Analyzer Integrated Index Details Report. You will get this report if you specify LEVL = SUM (or if you specify LEVL = DET).

When you look at the Integrated Index Summary Report, focus on the % OF SYSTEM OCCURRENCES in the last column, as shown in Figure 2-13 on page 2-50. HIGH VALUE, LOW VALUE, MEAN VALUE, and ACCUMULATED VALUE are reported for each statistical category.

2.20.1 Report Fields

Here is an explanation of the fields that make up the CA-IDMS/Task Analyzer Integrated Index Summary Report.

REPORT TITLE--The title line of this report varies depending on what you selected on the RUNAME and NAME parameter statements.

REQUESTED TIME INTERVAL--This line lists the start and stop date/time of the time interval you specified on the PROCESS statement. The data displayed in this line depends on what you select using the START and STOP parameters.

ACTUAL INTERVAL--This line lists the first start date and time and the last start date and time on the CA-IDMS Log or SMF File reported on. The data displayed in this line depends upon the actual time range of task activity within the CA-IDMS Log or SMF File.

SUMMARY FOR TASK CODE--Task code identification information; this includes task name, origin of execution, and version. Multiple versions of a task are reported separately; tasks with multiple origins of execution are also reported separately.

TOTAL RUN UNITS--The total number of run-units performed by programs that make up the reported task (within the time interval selected).

TOTAL ABENDS--The total number of abends that occurred as a result of processing the programs that make up the reported task (within the date and time interval selected).

SYSTEM RESOURCES: The CA-IDMS/DC statistics are reported. For a detailed explanation of the integrated index statistics, see 2.19, “CA-IDMS/Task Analyzer Integrated Index Details Report” on page 2-45.

- **SR8 SPLITS**
- **SR8 SPAWNS**

- **SR8 STORED**
- **SR8 ERASED**
- **SR7 STORED**
- **SR7 ERASED**
- **B-TREE SEARCHES**
- **B-TREE LEVEL SEARCHES**
- **ORPHANS ADOPTED**

HIGH VALUE--The highest value for each of the INDEX INFORMATION lines (depending upon the line) for the reported task.

TASK CODE--The task code of the task with the highest value of the INDEX INFORMATION lines (depending upon the line).

TASK NUMBER--Task number; this is the version number of the task with the highest value of the INDEX INFORMATION.

LOW VALUE--The lowest value for each of the INDEX INFORMATION lines for the reported task.

TASK CODE--The task code of the task with the lowest value of the INDEX INFORMATION lines (depending upon the line).

TASK NUMBER--Task number; this is the version number of the task with the lowest value of the INDEX INFORMATION lines.

MEAN VALUE--Average value per task occurrence within the reported INDEX INFORMATION lines.

ACCUM VALUE--Total value for all task occurrences for the INDEX INFORMATION lines (depending upon the line) within the reported time interval.

% OF SYSTEM OCCURRENCES--This ratio (expressed as a percentage) is the accumulated value for this task against the accumulated value for all selected tasks active within the reported time interval. This ratio highlights the tasks that are consuming the largest amount of system resources.

```
ID            RELEASE                        CA-IDMS/TASK ANALYZER              DATE              TIME          PAGE
              Rnn.nn                           INDEX REPORT                     mm/dd/yy          hh:mm:ss

                                             SUMMARY FOR ALL TASKS

                                        REQUESTED:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm
                                           ACTUAL:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm

                        HIGH     TASK     TASK       LOW      TASK     TASK       MEAN    ACCUM   % OF SYSTEM
                        VALUE    CODE     NUMBER     VALUE    CODE     NUMBER     VALUE   VALUE   OCCURRENCES

SUMMARY FOR TASK CODE ASFRDEFD     ORIGIN IDMS   VERSION   1

 TOTAL RUN UNITS                                                                                 6          0.48
 TOTAL ABENDS                                                                                    0          0.00
 SR8 SPLITS                4   ASFRDEFD     47          0   ASFRDEFD    404        1.50      9          4.55
 SR8 SPAWNS                0   ASFRDEFD     35          0   ASFRDEFD    404        0.00      0          0.00
 SR8 STORED                4   ASFRDEFD     47          0   ASFRDEFD    404        1.50      9          4.29
 SR8 ERASED                4   ASFRDEFD     65          0   ASFRDEFD    404        0.67      4         80.00
 SR7 STORED                0   ASFRDEFD     35          0   ASFRDEFD    404        0.00      0          0.00
 SR7 ERASED                0   ASFRDEFD     35          0   ASFRDEFD    404        0.00      0          0.00
 B-TREE SEARCHES         687   ASFRDEFD     65         15   ASFRDEFD    404      322.83   1937         12.34
 B-TREE LEVEL SEARCHES  1751   ASFRDEFD     65         30   ASFRDEFD    404      774.33   4646         13.94
 ORPHANS ADOPTED           0   ASFRDEFD     35          0   ASFRDEFD    404        0.00      0          0.00

SUMMARY FOR TASK CODE ASFSIGND   ORIGIN  IDMS   VERSION    1

 TOTAL RUN UNITS                                                                                 3          0.24
 TOTAL ABENDS                                                                                    0          0.00
 SR8 SPLITS                0   ASFSIGND    374          0   ASFSIGND    426        0.00      0          0.00
 SR8 SPAWNS                0   ASFSIGND    374          0   ASFSIGND    426        0.00      0          0.00
 SR8 STORED                0   ASFSIGND    374          0   ASFSIGND    426        0.00      0          0.00
 SR8 ERASED                0   ASFSIGND    374          0   ASFSIGND    426        0.00      0          0.00
 SR7 STORED                0   ASFSIGND    374          0   ASFSIGND    426        0.00      0          0.00
 SR7 ERASED                0   ASFSIGND    374          0   ASFSIGND    426        0.00      0          0.00
 B-TREE SEARCHES          15   ASFSIGND    374         15   ASFSIGND    426       15.00     45          0.29
 B-TREE LEVEL SEARCHES    30   ASFSIGND    374         30   ASFSIGND    426       30.00     90          0.27
 ORPHANS ADOPTED           0   ASFSIGND    374          0   ASFSIGND    426        0.00      0          0.00

SUMMARY FOR TASK CODE ASFXDERD ORIGIN   IDMS   VERSION    1

 TOTAL RUN UNITS                                                                                 3          0.24
 TOTAL ABENDS                                                                                    0          0.00
 SR8 SPLITS                5   ASFXDERD     36          0   ASFXDERD     39        2.67      8          4.04
 SR8 SPAWNS                0   ASFXDERD     36          0   ASFXDERD     39        0.00      0          0.00
 SR8 STORED                5   ASFXDERD     36          0   ASFXDERD     39        2.67      8          3.81
 SR8 ERASED                0   ASFXDERD     36          0   ASFXDERD     39        0.00      0          0.00
 SR7 STORED                0   ASFXDERD     36          0   ASFXDERD     39        0.00      0          0.00
 SR7 ERASED                0   ASFXDERD     36          0   ASFXDERD     39        0.00      0          0.00
 B-TREE SEARCHES         476   ASFXDERD     37        147   ASFXDERD     39      267.33    802          5.11
 B-TREE LEVEL SEARCHES   968   ASFXDERD     37        298   ASFXDERD     39      533.00   1599          4.80
 PHANS ADOPTED             0   ASFXDERD     36          0   ASFXDERD     39        0.00      0          0.00
```

Figure 2-13. Integrated Index Summary Report

2.21 Integrated Index System Summary Report

The CA-IDMS/Task Analyzer Integrated Index System Summary Report presents a sum-total of all Integrated Index Summaries within the time interval you select. All statistical categories are reported within run-unit origin: CA-IDMS/DC, CICS, and VM/ESA; or ALL. You will get this report by specifying LEVL = SYS. (This report will also be created if you specify LEVL = DET or LEVL = SUM.)

When you review this report, focus on % of SYSTEM OCCURRENCES in the last column, as shown in Figure 2-14 on page 2-53. These statistics reflect trends on the use of your CA-IDMS/DC environment. HIGH VALUE, LOW VALUE, MEAN VALUE, and ACCUMULATED VALUE are reported for each statistical category.

2.21.1 Report Fields

Here is a description of the various fields that make up the System Summary Report.

REPORT TITLE--The title line of this report varies depending on what you selected on the RUNAME and NAME parameter statements.

REQUESTED TIME INTERVAL--This line lists the start and stop date/time of the time interval you specified on the PROCESS statement. The data displayed in this line depends on what you select using the START and STOP parameters.

ACTUAL INTERVAL--This line lists the first start date and time and the last start date and time on the CA-IDMS Log or SMF File reported on. The data displayed in this line depends upon the actual time range of task activity within the CA-IDMS Log or SMF File.

SUMMARY FOR ALL REQUESTED ENTITIES--This line indicate that a summarization of statistics follows.

TOTAL RUN UNITS--The total number of run-units performed by programs that make up the reported task (within the time interval selected).

TOTAL ABENDS--The total number of abends that occurred as a result of processing the programs that make up the reported task (within the date and time interval selected).

SYSTEM RESOURCES: The CA-IDMS/DC statistics are reported. For a detailed explanation of the CA-IDMS/DC statistics, see 2.19, “CA-IDMS/Task Analyzer Integrated Index Details Report” on page 2-45.

- **SR8 SPLITS**
- **SR8 SPAWNS**
- **SR8 STORED**
- **SR8 ERASED**

- **SR7 STORED**
- **SR7 ERASED**
- **B-TREE SEARCHES**
- **B-TREE LEVEL SEARCHES**
- **ORPHANS ADOPTED**

HIGH VALUE--The highest value for each of the SYSTEM RESOURCES (depending upon the line) for the reported task.

TASK CODE--The ID of the task with the highest value of the SYSTEM RESOURCES (depending upon the line).

TASK NUM--Task number; this is the number of the task with the highest value of the SYSTEM RESOURCES.

LOW VALUE--The lowest value for each of the SYSTEM RESOURCES for the reported task.

TASK CODE--The ID of the task with the lowest value of the SYSTEM RESOURCES (depending upon the line).

TASK NUM--Task number; this is the number of the task with the highest value of the SYSTEM RESOURCES.

MEAN VALUE--Average value per program occurrence within the reported SYSTEM RESOURCES.

ACCUM VALUE--Total value for all program occurrences for the SYSTEM RESOURCES (depending upon the line) within the reported time interval.

% OF SYSTEM OCCURRENCES--This ratio (expressed as a percentage) is the accumulated value for this program against the accumulated value for all selected programs active within the reported time interval. This ratio highlights the programs that are consuming the largest amount of system resources.

```
ID                 RELEASE                          CA-IDMS/TASK ANALYZER            DATE              TIME           PAGE
                  Rnn.nn                            SYSTEM SUMMARY REPORT          mm/dd/yy          hh:mm:ss

                                                  REQUESTED:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm
                                                     ACTUAL:  mm/dd/yy  hh/mm - mm/dd/yy  hh/mm

                           HIGH         TASK       TASK          LOW          TASK      TASK          MEAN     ACCUM    % OF SYSTEM
                           VALUE        CODE       NUMBER        VALUE        CODE      NUMBER        VALUE    VALUE    OCCURRENCE

SUMMARY FOR ALL TASKS

   TOTAL RUN UNITS                                                                                              93           7.40
   TOTAL ABENDS                                                                                                  0           0.00
   SR8 SPLITS              5     ASFXDERD        36             0     OEDCU002        1730          0.22        20          10.10
   SR8 SPAWNS              0     ASF             1736           0     OEDCU002        1730          0.00         0           0.00
   SR8 STORED              5     ASFXDERD        36             0     OEDCU002        1730          0.30        28          13.33
   SR8 ERASED              4     ASFRDEFD        65             0     OEDCU002        1730          0.05         5         100.00
   SR7 STORED              3     DMLO            83             0     OEDCU002        1730          0.09         8         100.00
   SR7 ERASED              1     OEDCU002        1573           0     OEDCU002        1730          0.01         1         100.00
   B-TREE SEARCHES         687   ASFRDEFD        65             0     OEDCU002        1576         73.01      6790          43.26
   B-TREE LEVEL SEARCHES 1751   ASFRDEFD        65             0     OEDCU002        1576        147.68     13734          41.20
   ORPHANS ADOPTED         0     ASF             1736           0     OEDCU002        1730          0.00         0           0.00
```

Figure 2-14. Integrated Index Ststem Summary Report

2.22 CA-IDMS/Task Analyzer Ranking Report

The CA-IDMS/Task Analyzer Ranking Report uses system performance and resource consumption information derived from the original Details Reports. Statistics are ranked under ASCENDING or DESCENDING, depending on the ORDER parameter you select.

Unlike the Details Reports, however, which contain information for all attributes of a task presented in time sequence, the Ranking Report presents the specific task attribute you select, in the sequence you specify. You may also specify whether the ABSOLUTE value of the attribute is to be ranked or whether to rank the task by occurrence EQUAL, LESS THAN, LESS THAN OR EQUAL TO, GREATER THAN, or GREATER THAN OR EQUAL TO the occurrence of the attribute.

You will get this report if you specify REPORT = RANK on the parameter statement.

2.22.1 Report Fields

These fields make up the CA-IDMS/Task Analyzer Ranking Report. The report fields defined below are valid for all versions of the Ranking Report.

REPORT TITLE--The title line of this report varies depending on what you select on the HOW and WHAT parameter statements.

REQUESTED TIME INTERVAL--This line lists the start and stop date/time of the time interval you specified on the PROCESS statement. The data displayed in this line depends on what you select using the START and STOP parameters.

ACTUAL INTERVAL--This line lists the first start date and time and the last start date and time on the CA-IDMS Log or SMF File reported on. The data displayed in this line depends upon the actual time range of task activity within the CA-IDMS Log or SMF File.

RANK--Ranking of task as determined by CA-IDMS/Task Analyzer.

TASK CODE--The identifying number of the task reported.

TASK NUMBER--Number of the task within the date and time interval selected.

TASK VER--Version of the task. Multiple versions of a task are reported separately.

TYPE--Type of task performed, indicating the language of the program the task invokes.

- **ASSEM**: Assembler
- **COBOL**: COBOL
- **ADSO**: CA-ADS

- **PL1**: PL/1
- **FTRAN**: Fortran

ORIGIN--Origin of the task. The operating system or environment where execution of the task originated.

- **IDMS**: CA-IDMS/DC
- **CICS**: CICS
- **VM**: VM/ESA
- **BTCH**: batch

START DATE-TIME--The start date and time of the task being reported.

VALUE--Value of WHAT for the task attribute, (seconds, percentage, etc.).

CV NUMBER--The number of the CV that the statistics on this report apply to.

PLAN ID--The statistics plan ID that the statistics on this report apply to.

```
ID              RELEASE                          CA-IDMS/TASK ANALYZER              DATE             TIME          PAGE
                Rnn.nn                              RANKING REPORT                  mm/dd/yy         hh:mm:s

                                                  SELECTION TYPE  -  WAIT TIME
CV NUMBER:  19    PLAN ID:  PLAN0001                  ABSOLUTE VALUE

                                              REQUESTED:  mm/dd/yy   hh:mm - mm/dd/yy  hh:mm
                                                 ACTUAL:  mm/dd/yy   hh:mm - mm/dd/yy  hh:mm

                 TASK          TASK          TASK                                      START        START
          RANK   CODE          NUMBER        VER          TYPE          ORIGIN         DATE         TIME              VALUE

             1   SCCULP             70          0        ADSO          BTCH           4/30         17:14:00
             2   MAKLOG            150          0        ADSO          BTCH           4/30         17:54:59
             3   OPER               17          1        ASSEM         IDMS           4/28         8:32:33
             4   ICDVPL02          344          1        ADSO          IDMS           4/30         19:22:33
             5   DMLO              299         43        ASSEM         IDMS           4/28         10:49:17
             6   LOGD               68         45        ASSEM         IDMS           4/28         9:13:06
             7   ICDVPL02          360          1        ADSO          IDMS           4/30         19:33:58
             8   QUED                2          1        ASSEM         IDMS           4/28         3:03:25
             9   QUED                2          1        ASSEM         IDMS           4/27         23:24:54
            10   DQI               199          1        ASSEM         IDMS           4/30         18:16:03
            11   LOGD               47         45        ASSEM         IDMS           4/28         9:08:34
            12   OPER              293          1        ASSEM         IDMS           4/28         10:47:41
            13   QUED                2          1        ASSEM         IDMS           4/28         8:30:09
            14   IDCVPL02          140          1        ADSO          IDMS           4/28         10:31:27
            15   MAKLOG            186          0        ASSEM         BTCH           4/30         18:05:49
            16   LOGD              352         45        ASSEM         IDMS           4/28         10:55:28
            17   USKEVNT           365         46        ASSEM         IDMS           4/28         10:57:38
            18   LOGD              401         45        ASSEM         IDMS           4/28         11:03:42
            19   ICDVPL01          337          1        ADSO          IDMS           4/30         19:20:23
            20   USKEVNT           489         46        ASSEM         IDMS           4/28         11:10:12
```

Figure 2-15. Ranking Report

2.23 CA-IDMS/Task Analyzer Input Parameter Report

The CA-IDMS/Task Analyzer Input Parameter Report contains a list of the parameters input to CA-IDMS/Task Analyzer and the messages that result from processing.

2.23.1 Report Fields

These fields make up the CA-IDMS/Task Analyzer Input Parameter Report (see Figure 2-16). This report and the fields that appear on the report vary, depending on the parameters input to CA-IDMS/Task Analyzer.

*****--Processing messages

******--Input parameters

```
ID          RELEASE                          CA-IDMS/TASK ANALYZER          DATE                TIME                PAGE
            Rnn.nn                         INPUT PARAMETER REPORT         mm/dd/yy            hh:mm:ss

                                                                  V---+---1---+---2---+---3---+---4---+---5---+---6---+---7---+--
* ►      USF0001I      INPUT PARAMETER STATEMENT.....................PROCESS DCSYSRUN=N  IDMSXXXX=N ◄ **
         USF0001I      INPUT PARAMETER STATEMENT.....................*PROCESS CVNUM=0019 PLANID=PLAN0001
         USF0001I      INPUT PARAMETER STATEMENT.....................REPORT=ABND LEVEL=DET RUTYPE=@RUNAME=@ALL
         USF0001I      INPUT PARAMETER STATEMENT.....................REPORT=ADSO LEVEL=DET RUTYPE=@RUNAME=@ALL
         USF0001I      INPUT PARAMETER STATEMENT.....................REPORT=BILL LEVEL=DET RUTYPE=@RUNAME=@ALL
         USF0001I      INPUT PARAMETER STATEMENT.....................REPORT=INDX LEVEL=DET RUTYPE=@RUNAME=@ALL
         USF0001I      INPUT PARAMETER STATEMENT.....................REPORT=LOAD LEVEL=DET RUTYPE=@RUNAME=@ALL
         USF0001I      INPUT PARAMETER STATEMENT.....................REPORT=PROG LEVEL=DET RUTYPE=@RUNAME=@ALL
         USF0001I      INPUT PARAMETER STATEMENT.....................REPORT=RANK ORDER=D                      WHAT=CPU
         USF0006I      REPORTS WILL BE PROCESSED.....................
```

Figure 2-16. Input Parameter Report

Chapter 3. Parameters

CA-IDMS/Task Analyzer is parameter-driven: you control the output by supplying the proper parameters which are used as input to a batch job that extracts the information from the CA-IDMS log or SMF file and then formats the information to your specifications. CA-IDMS/Task Analyzer parameters let you select the report types you want to produce, the level of detail, the kind of detail, the time interval, as well as other useful selections.

3.1 CA-IDMS/Task Analyzer Parameters

This chapter is divided into the following sections:

- Parameters and Their Uses
- PROCESS Parameter
- Billing Report Parameters
- Program Report Parameters
- CA-ADS Report Parameters
- Abend Report Parameters
- Program LOADS Report Parameters
- Integrated Index Report Parameters
- Ranking Report Parameters
- Parameter Summary

See Chapter 4, “Operations” on page 4-1 for JCL procedures to run CA-IDMS/Task Analyzer.

3.1.1 Parameters and Their Uses

Two parameters control CA-IDMS/Task Analyzer output: PROCESS and REPORT. The PROCESS parameter initiates CA-IDMS/Task Analyzer processing. The REPORT parameter specifies which CA-IDMS/Task Analyzer report is to be printed.

The PROCESS parameter is mandatory and should precede all report parameters. It supplies certain global parameters that initiate all processing performed by CA-IDMS/Task Analyzer.

The REPORT parameter specifies which type of CA-IDMS/Task Analyzer report is to be created and defines the data that is to be printed. Up to 210 reports can be requested for each execution of CA-IDMS/Task Analyzer.

A parameter summary and examples of all statements are shown in Figure 3-1 on page 3-33 at the end of this chapter.

3.1.2 Order of Parameter Statements

The PROCESS Statement must be entered first. The spelling of the REPORT statement keywords is not important. The keywords, however, must be entered in the order presented.

3.1.3 Maximum Number of Reports Possible Per Execution

A total of 210 reports can be requested during each execution of CA-IDMS/Task Analyzer. A total of 30 reports per report group (Billing, Program, CA-ADS, Abend, Program Loads, Integrated Index, or Ranking) can be requested during each execution of CA-IDMS/Task Analyzer. This means you can choose, for example, 30 Program Detail Reports, 30 CA-ADS Summary Reports, and 30 Billing System Summary Reports, or any combination of reports and options available through CA-IDMS/Task Analyzer.

Example	Functions
`PROCESS`	All keywords are written in UPPERCASE. Those portions of the keyword that must be entered are UNDERSCORED. When part of a keyword is not underscored, you may omit it without altering the meaning of the statement. You must, however, enter all values for variables within the columns indicated.
`REPORT=BILL`	A keyword phrase is made up of a major keyword followed by an equal sign (=), followed by a minor keyword or a variable. A keyword phrase cannot be split between two parameter cards.
`NAME=name`	Variables appear in lower case. Substitute an appropriate value for each variable if the keyword phrase is required.
`[ LEVL=DET ]`	Brackets indicate optional keyword phrases. If you omit the entire parameter, CA-IDMS/Task Analyzer will supply a default value.

`/BILL \`
`|ADSO |`
`REPORT = <ABEND>`
`|LOAD |`
`\INDX /`
	Braces enclose two or more options in a column. You must choose one of them. The last option listed in the column is the default value (unless otherwise stated).

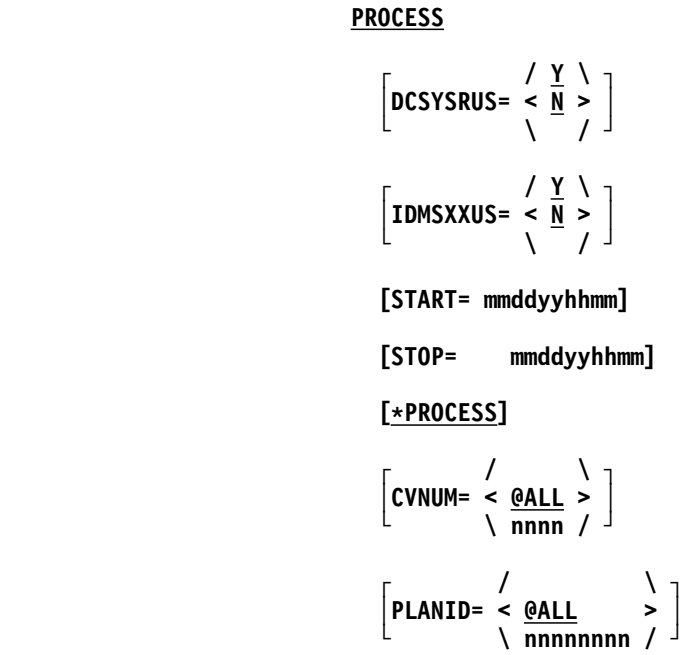
	The PROCESS and REPORT parameters for CA-IDMS/Task Analyzer are positional: keywords and values must be entered in the designated columns, as identified in the following pages. For examples of correctly entered PROCESS and REPORT statements, see Figure 3-1 on page 3-33.

Table 3-1. Notation Conventions

3.2 Process Parameter

The PROCESS parameter statement specifies that CA-IDMS/Task Analyzer processing is desired, and its parameters have global meaning for the entire execution of CA-IDMS/Task Analyzer. The parameters are positional. See below for a PROCESS statement example.

The PROCESS parameter syntax is:



where:

PROCESS

identifies the PROCESS statement, and

***PROCESS**

identifies the PROCESS continuation line.

Rules:

1. You must enter PROCESS in columns 1 through 7 of the first line.
2. Enter *PROCESS in columns 1 through 8 of the second line only if you are using the CVNUM and PLANID parameters.
3. The PROCESS statement is mandatory.

```
EXAMPLE:  PROCESS STATEMENT

  ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
  PROCESS DCSYSRUS=Y IDMSXXXX=Y START=0420862030 STOP=0420862359
  *PROCESS CVNUM=0254 PLANID=PLAN1111

            / Y \
  DCSYSRUS= < N >
            \   /
```

indicates whether CA-IDMS/DC system run-units will be selected for processing by subsequent REPORT parameters.

Default: N (for no processing) is the default value.

Rule: The exact spelling of this keyword is not important. You must, however enter **Y** (for yes) or **N** (for no) in column 18 of the first PROCESS line.

```
            / Y \
  IDMSXXUS= < N >
            \   /
```

indicates whether tasks with program names beginning with IDMS will be selected for processing by subsequent REPORT parameters.

Default: N (for no program names beginning with IDMS) is the default value.

Rule: The exact spelling of this keyword is not important. You must, however, enter **Y** (for yes) or **N** (for no) in column 29 of the first PROCESS line.

START = mmddyyhhmm

specifies the starting date and time for the time period that you want CA-IDMS/Task Analyzer to report on. The first task reported is the first task performed at or after the specified start time.

Default: The default is the earliest starting Log date/time found in the input file.

Rules:

1. The exact spelling of this keyword is not important. You must, however, enter the start date and time in columns 37 through 46 of the first PROCESS line.
2. Start time must be specified in mmddyyhhmm format, where mmddyy represents the Gregorian date (month/day/year) and hhmm is the time (hour/minute) using the 24-hour clock.
3. All zeros must be entered as placeholders. For example, 0102862301 would be entered for 11:01 p.m. on January 2, 1986.

STOP = mmddyyhhmm

indicates the starting date and time of the last task you want CA-IDMS/Task Analyzer to report on.

Default: The default for this keyword is the latest starting Log date/time found in the input file.

Rules:

1. The exact spelling of this keyword is not important. You must, however, enter the stop date and time in columns 53 to 62 of the first PROCESS line.
2. Stop time must be specified in mmddyyhhmm format, where mmddyy represents the Gregorian date (month/day/year) and hhmm is the time (hour/minute) using the 24-hour clock.
3. All zeros must be entered as placeholders. For example, 0102862301 would be entered for 11:01 p.m. on January 2, 1986.

```
       /      \
CVNUM= < @ALL >
       \ nnnn /
```

specifies the CV for which statistics are to be extracted and reported on. You can specify all CVs with @ALL or a specific CV number.

Default: The default is @ALL for all CVs. Detail reports will break by CV number.

Rules:

1. The exact spelling of this keyword is not important. You must, however, enter the CVNUM value in columns 16 through 19 of the *PROCESS continuation line.
2. All leading zeroes must be entered as placeholders for the 4 digit **nnnn** value.

```
        /          \
PLANID= < @ALL     >
        \ nnnnnnnn /
```

specifies the Statistics Plan ID (as entered on the Statistics Plan screen) for which statistics are to be extracted and reported on. You can specify all Plan IDs with @ALL or a specific Plan ID number.

Default: The default is @ALL for all Plan IDs. Detail reports will break by Plan ID number.

Rule: The exact spelling of this keyword is not importan. You must, however, enter the PLANID value beginning in column 28 of the *PROCESS continuation line.

3.3 Billing Report Parameters

The Billing Reports are available at three levels: details, summary, and system. To generate these reports, use the parameter syntax listed here.

The parameters for CA-IDMS/Task Analyzer are positional. See below for a REPORT statement example.

The parameters are:

```
REPORT = BILL

          / DET \
LEVL = < SUM >
          \ SYS /


          / D \
          | C |
RUTYPE = < V >
          | B |
          \ @ /

          / OPER \
          | TERM |
RUNAME = < TASK >
          | GRUP |
          \ @ALL /

[NAME = name]
```

where:

REPORT = **BILL**

indicates that CA-IDMS/Task Analyzer is to create and print a BILLING Report.

Rule: You must enter BILL in columns 8 through 11.

```
EXAMPLE:  REPORT STATEMENT, BILLING REPORT

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
REPORT=BILL LEVL=DET RUTYPE=D RUNAME=@ALL NAME=*
```

```
       / DET \
LEVL = < SUM >
       \ SYS /
```

Use this parameter to specify the level of reporting that you want printed.

- **DET**--indicates that you want CA-IDMS/Task Analyzer to print the Billing Details Report. (A Billing Summary Report and a Billing System Summary Report also will be produced for each time interval.)

- **SUM**--indicates that you want a Billing Summary Report by program name. (A Billing System Summary also will be produced for each time interval.)
- **SYS**--indicates that you want only system summaries to be produced for each time interval.

Default: DET is the default.

Rule: The exact spelling of this keyword (LEVL) is not important. You must, however, enter DET, SUM, or SYS in columns 18 through 20.

```
          / D \
          | C |
RUTYPE = < V >
          | B |
          \ @ /
```

Use this parameter to specify the origin of execution for the tasks you want reported.

- **D**--indicates that you want CA-IDMS/Task Analyzer to report on tasks with CA-IDMS/DC as the origin of execution.
- **C**--indicates that you want CA-IDMS/Task Analyzer to report on tasks with CICS as the origin of execution.
- **V**--indicates that you want CA-IDMS/Task Analyzer to report on tasks with VM/ESA as the origin of execution.
- **B**--indicates that you want CA-IDMS/Task Analyzer to report on tasks with Batch as the origin of execution.
- **@**--indicates that you want CA-IDMS/Task Analyzer to report on tasks with all of the above origins of execution.

Default: @ is the default.

Rule: The exact spelling of this keyword (RUTYPE) is not important. You must, however, enter D, C, V, B, or @ in column 29.

```
          / OPER \
          | TERM |
RUNAME = < TASK >
          | GRUP |
          \ @ALL /
```

An individual task may be identified in a number of ways. The way CA-IDMS/Task Analyzer identifies a task is determined by three things:

- Whether this is a request for a Billing, Program, CA-ADS, Program Loads, Abend, or Integrated Index Report.
- Whether execution of this task originates from an online transaction or a batch transaction.
- Whether this task has been invoked by an operator, from a terminal, by task code, or by a group.

Online and batch tasks can be identified by operator, terminal, task, or group.

- **OPER**--specifies that tasks are to be identified by operator ID.
- **TERM**--specifies that tasks are to be identified by logical terminal ID.
- **TASK**--specifies that tasks are to be specified by task code.
- **GRUP**--specifies that tasks are to be specified by a pre-defined group ID. For CA-IDMS/Task Analyzer purposes, group ID is in bytes 17-32 of Installation Code in the USER entity of the dictionary.
- **@ALL**--specifies that CA-IDMS/Task Analyzer reports on all tasks invoked by operator ID, terminal ID, task code, and group ID.

Default: @ALL is the default.

Rule: The exact spelling of this keyword (RUNAME) is not important. You must, however, enter the OPER, TERM, TASK, GRUP, or @ALL in columns 38 through 41.

NAME = name

This parameter lets you select only those task records that have a specific (or generic) task name. The field that will contain this name is specified by the RUNAME parameter.

Use this parameter to specify the actual (or generic) operator ID, terminal ID, task code, or group ID that a task must have in order for that task to be selected for analysis on the Billing Report.

Note: CA-IDMS/Task Analyzer will perform generic processing. For example, if you key in an asterisk (*) before a name field (i.e., NAME = *ABC), all tasks (as specified by the RUNAME parameter) whose name field begins with ABC will be included in the report.

Default: There is no default. When no characters are entered in columns 48 through 63, CA-IDMS/Task Analyzer searches for an operator, terminal, or group that has “blanks” (no characters) for an ID. If RUNAME=TASK is specified and NAME=“blanks” (no characters), CA-IDMS/Task Analyzer returns an error message.

Rules:

1. The exact spelling of this keyword (NAME) is not important. You must, however, enter the name of the operator, terminal, task, or group beginning in column 48 and at the maximum ending in column 63.
2. A maximum of sixteen characters can be entered for the OPER, TERM, TASK, or GRUP name.
3. You can enter an asterisk followed by 0 to 15 characters. When an asterisk is entered followed by blanks (no characters), CA-IDMS/Task Analyzer reports on all tasks as specified by RUNAME. When an asterisk followed by 1 to 15 charac-

ters is specified, CA-IDMS/Task Analyzer reports on all tasks with names beginning with the 1 to 15 characters.

3.3.1 How RUTYPE, RUNAME, and NAME Parameters Interrelate

RUTYPE indicates what processing environment is the origin of execution for the task you want CA-IDMS/Task Analyzer to report on; the default for RUTYPE is @, indicating CA-IDMS/Task Analyzer is to report on tasks executing in the processing environments CA-IDMS/DC, CICS, VM/ESA, and batch. RUNAME indicates the category of tasks you want CA-IDMS/Task Analyzer to report on, that is, by operator, terminal, task code, or group. The default for RUNAME is @ALL, indicating CA-IDMS/Task Analyzer is to report on all categories of tasks: operator, terminal, task code, and group. NAME indicates the actual name of the operator, logical terminal, task, or group that you want CA-IDMS/Task Analyzer to report on; there is no default for the NAME parameter (see the explanation under NAME).

When RUTYPE=@ is specified (or selected by default), CA-IDMS/Task Analyzer reports on all tasks originating from the four processing environments (CA-IDMS/DC, CICS, VM/ESA, and Batch) for the specified RUNAME and NAME. When RUNAME=@ALL is specified (or selected by default), CA-IDMS/Task Analyzer reports on all tasks originating in all processing environments previously specified, for all four categories of tasks: operator ID, logical terminal ID, task code, or group ID. Also when RUNAME=@ALL is specified, CA-IDMS/Task Analyzer overrides all characters specified after the NAME parameter, and reports on all occurrences of all tasks for all four categories of tasks. When NAME=@ is specified, CA-IDMS/Task Analyzer reports on all occurrences of tasks identified by the RUNAME.

3.4 Program Report Parameters

The Program Reports are available at three levels: details, summary, and system. To generate these reports, use the parameter syntax listed here.

The parameters for CA-IDMS/Task Analyzer are positional. See below for a REPORT statement example.

The parameters are:

```
REPORT = PROG

         / DET \
LEVL = < SUM >
         \ SYS /

           / D \
           | C |
RUTYPE = < V >
           | B |
           \ @ /

           / OPER \
           | TERM |
RUNAME = < TASK >
           | GRUP |
           \ @ALL /

[NAME = name]
```

where:

REPORT = PROG

indicates that CA-IDMS/Task Analyzer is to create and print a PROGRAM Report.

Rule: You must enter PROG in columns 8 through 11.

```
EXAMPLE:  REPORT STATEMENT, PROGRAM REPORT

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
REPORT=PROG LEVL=SUM RUTYPE=C RUNAME=GRUP NAME=EXAMY
```

```
       / DET \
LEVL = < SUM >
       \ SYS /
```

Use this parameter to specify the level of reporting that you want printed.

- **DET**--indicates that you want CA-IDMS/Task Analyzer to print the Program Details Report. (A Program Summary Report and a Program System Summary Report also will be produced for each time interval.)

- **SUM**--indicates that you want a Program Summary Report by program name. (A Program System Summary also will be produced for each time interval.)
- **SYS**--indicates that you want only system summaries to be produced for each time interval.

Default: DET is the default.

Rule: The exact spelling of this keyword (LEVL) is not important. You must, however, enter DET, SUM, or SYS in columns 18 through 20.

```
          / D \
          | C |
RUTYPE = < V >
          | B |
          \ @ /
```

Use this parameter to specify the origin of execution for the tasks you want reported.

- **D**--indicates that you want CA-IDMS/Task Analyzer to report on the first program in tasks with CA-IDMS/DC as the origin of execution.
- **C**--indicates that you want CA-IDMS/Task Analyzer to report on the first program in tasks with CICS as the origin of execution.
- **V**--indicates that you want CA-IDMS/Task Analyzer to report on the first program in tasks with VM/ESA as the origin of execution.
- **B**--indicates that you want CA-IDMS/Task Analyzer to report on the first program in tasks with Batch as the origin of execution.
- **@**--indicates that you want CA-IDMS/Task Analyzer to report on the first program in tasks with all of the above origins of execution.

Default: @ is the default.

Rule: The exact spelling of this keyword (RUTYPE) is not important. You must, however, enter D, C, V, B, or @ in column 29.

```
          / OPER \
          | TERM |
RUNAME = < TASK >
          | GRUP |
          \ @ALL /
```

An individual task may be identified in a number of ways. The way CA-IDMS/Task Analyzer identifies a task is determined by three things:

- Whether this is a request for a Billing, Program, CA-ADS, Program Loads, Abend, or Integrated Index Report.
- Whether execution of this task originates from an online transaction or a batch transaction.
- Whether this task has been invoked by an operator, from a terminal, by task code, or by a group.

Online and batch tasks can be identified by operator, terminal, task, or group.

- **OPER**--specifies that tasks are to be identified by operator ID.
- **TERM**--specifies that tasks are to be identified by logical terminal ID.
- **TASK**--specifies that tasks are to be specified by task code.
- **GRUP**--specifies that tasks are to be specified by a pre-defined group ID. For CA-IDMS/Task Analyzer purposes, group ID is in bytes 17-32 of Installation Code in the USER entity of the dictionary.
- **@ALL**--specifies that CA-IDMS/Task Analyzer reports on all tasks invoked by operator ID, terminal ID, task code, and group ID.

Rule: The exact spelling of this keyword (RUNAME) is not important. You must, however, enter OPER, TERM, TASK, GRUP, or @ALL in columns 38 through 41.

NAME = name

This parameter lets you select only those task records that have a specific (or generic) task name. The field that is to contain this name is specified by the RUNAME parameter.

Use this parameter to specify the actual (or generic) operator ID, logical terminal ID, task code, or group ID that a task must have in order for that task to be selected for analysis on the Program Report.

Note: CA-IDMS/Task Analyzer will perform generic processing. For example, if you key in an asterisk (*) before a name field (i.e., NAME = *ABC), all tasks (as specified by the RUNAME parameter) whose name field begins with ABC will be included in the report.

Default: There is no default. When no characters are entered in columns 48 through 63, CA-IDMS/Task Analyzer searches for an operator, terminal, or group that has “blanks” (no characters) for an ID. If RUNAME=TASK is specified and NAME=“blanks” (no characters), CA-IDMS/Task Analyzer returns an error message.

Rules:

1. The exact spelling of this keyword (NAME) is not important. You must, however, enter the name of the operator, terminal, task, or group beginning in column 48 and at the maximum ending in column 63.
2. A maximum of sixteen characters can be entered for the OPER, TERM, TASK, or GRUP name.
3. You can enter an asterisk followed by 0 to 15 characters. When an asterisk is entered followed by blanks (no characters), CA-IDMS/Task Analyzer reports on all tasks as specified by RUNAME. When an asterisk followed by 1 to 15 characters is specified, CA-IDMS/Task Analyzer reports on all tasks with names beginning with the 1 to 15 characters.

3.5 CA-ADS Report Parameters

The CA-ADS Reports are available at three levels: details, summary, and system. To generate these reports, use the parameter syntax listed here.

The parameters for CA-IDMS/Task Analyzer are positional. See below for a REPORT statement example.

The parameters are:

```
REPORT = ADSO

         / DET \
LEVL = < SUM >
         \ SYS /

           / D \
           | C |
RUTYPE = < V >
           \ @ /

           / OPER \
           | TERM |
RUNAME = < TASK >
           | GRUP |
           \ @ALL /

[NAME = name]
```

where:

REPORT = **ADSO**

indicates that CA-IDMS/Task Analyzer is to create and print a CA-ADS Report.

Rule: You must enter ADSO in columns 8 through 11.

EXAMPLE: REPORT STATEMENT, CA-ADS

```
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
REPORT=ADSO LEVL=SYS RUTYPE=V RUNAME=TASK NAME=EPOSED
```

```
       / DET \
LEVL = < SUM >
       \ SYS /
```

Use this parameter to specify the level of reporting that you want printed.

- **DET**--indicates that you want CA-IDMS/Task Analyzer to print the CA-ADS Details Report. (A CA-ADS Summary Report and a CA-ADS System Summary Report will also be produced for each time interval.)
- **SUM**--indicates that you want a CA-ADS Summary Report by dialog name. (A CA-ADS System Summary Report will also be produced for each time interval.)

- **SYS**--indicates that you want only system summaries to be produced for each time interval.

Default: DET is the default.

Rule: The exact spelling of this keyword (LEVL) is not important. You must, however, enter DET, SUM, or SYS in columns 18 through 20.

```
          / D \
          | C |
RUTYPE = < V >
          \ @ /
```

Use this parameter to specify the origin of execution for the tasks (that have as their first program a CA-ADS dialog) you want reported.

- **D**--indicates that you want CA-IDMS/Task Analyzer to report on the first CA-ADS dialog in tasks with CA-IDMS/DC as the origin of execution.
- **C**--indicates that you want CA-IDMS/Task Analyzer to report on the first CA-ADS dialog in tasks with CICS as the origin of execution.
- **V**--indicates that you want CA-IDMS/Task Analyzer to report on the first CA-ADS dialog in tasks with VM/ESA as the origin of execution.
- **@**--indicates that you want CA-IDMS/Task Analyzer to report on the first CA-ADS dialog in tasks with all of the above origins of execution.

Default: @ is the default.

Rule: The exact spelling of this keyword (RUTYPE) is not important. You must, however, enter D, C, V, or @ in column 29.

```
          / OPER \
          | TERM |
RUNAME = < TASK >
          | GRUP |
          \ @ALL /
```

An individual task may be identified in a number of ways. How CA-IDMS/Task Analyzer identifies a task is determined by three things:

- Whether this is a request for a Billing, Program, CA-ADS, Program Loads, Abend, or Integrated Index Report.
- Whether execution of this task originates from an online transaction or a batch transaction.
- Whether this task has been invoked by an operator, from a terminal, by task code, or by a group.

Online and batch tasks can be identified by operator, terminal, task, or group.

- **OPER**--specifies that tasks are to be identified by operator ID.
- **TERM**--specifies that tasks are to be identified by logical terminal ID.

- **TASK**--specifies that tasks are to be specified by task code.
- **GRUP**--specifies that tasks are to be specified by a pre-defined group ID. For CA-IDMS/Task Analyzer purposes, group ID is in bytes 17-32 of Installation Code in the USER entity of the dictionary.
- **@ALL**--specifies that CA-IDMS/Task Analyzer reports on all tasks invoked by operator ID, terminal ID, task code, and group ID.

Default: @ALL is the default.

Rule: The exact spelling of this keyword (RUNAME) is not important. You must, however, enter OPER, TERM, TASK, GRUP, or @ALL in columns 38 through 41.

NAME = name

This parameter lets you select only those task records that have a specific (or generic) task name. The field that will contain this name is specified by the RUNAME parameter.

Use this parameter to specify the actual (or generic) operator ID, logical terminal ID, task code, or group ID that a task must have in order for that task to be selected for analysis on the CA-ADS Report.

Note: CA-IDMS/Task Analyzer will perform generic processing. For example, if you key in an asterisk (*) before a name field (i.e., NAME = *ABC), all tasks (as specified by the RUNAME parameter) whose name field begins with ABC will be included in the report.

Default: There is no default. When no characters are entered in columns 48 through 63, CA-IDMS/Task Analyzer searches for an operator, terminal, or group that has “blanks” (no characters) for an ID. If RUNAME=TASK is specified and NAME=“blanks” (no characters), CA-IDMS/Task Analyzer returns an error message.

Rules:

1. The exact spelling of this keyword (NAME) is not important. You must, however, enter the name of the operator, terminal, task, or group beginning in column 48 and at the maximum ending in column 63.
2. A maximum of sixteen characters can be entered for the OPER, TERM, TASK, or GRUP name.
3. You can enter an asterisk followed by 0 to 15 characters. When an asterisk is entered followed by blanks (no characters), CA-IDMS/Task Analyzer reports on all tasks as specified by RUNAME. When an asterisk followed by 1 to 15 characters is specified, CA-IDMS/Task Analyzer reports on all tasks with names beginning with the 1 to 15 characters.

3.6 Abend Report Parameters

The Abend Report is available at one level: detail. To generate this report, use the parameter syntax listed on this page.

The parameters for CA-IDMS/Task Analyzer are positional. See below for a REPORT statement example.

The parameters are:

```
REPORT = ABND

  [LEVL = DET ]

          / D \
          | C |
RUTYPE = < V >
          | B |
          \ @ /

          / OPER \
          | TERM |
RUNAME = < TASK >
          | GRUP |
          \ @ALL /

  [NAME = name]
```

where:

REPORT = **ABND**

indicates that CA-IDMS/Task Analyzer is to create and print an ABEND Report.

Rule: You must enter ABND in columns 8 through 11.

```
EXAMPLE: REPORT STATEMENT, ABEND REPORT

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
REPORT=ABND LEVL=DET RUTYPE=B RUNAME=@ALL NAME=TERKK
```

LEVL = DET

Use this parameter to specify that you want printed the Abend Details Report.

- **DET**--indicates that you want CA-IDMS/Task Analyzer to print the Abend Details Report.

Default: DET is the default.

Rule: The exact spelling of this keyword (LEVL) is not important. You must, however, enter DET in columns 18 through 20.

```
          / D \
          | C |
RUTYPE = < V >
          | B |
          \ @ /
```

Use this parameter to specify the origin of execution for the tasks you want reported. A report is generated for the specified tasks if they abend while processing under CA-IDMS, even though processing began within CICS, VM/ESA, or Batch.

- **D**--indicates that you want CA-IDMS/Task Analyzer to report on the tasks with CA-IDMS/DC as the origin of execution.
- **C**--indicates that you want CA-IDMS/Task Analyzer to report on the tasks with CICS as the origin of execution.
- **V**--indicates that you want CA-IDMS/Task Analyzer to report on the tasks with VM/ESA as the origin of execution.
- **B**--indicates that you want CA-IDMS/Task Analyzer to report on the tasks with Batch as the origin of execution.
- **@**--indicates that you want CA-IDMS/Task Analyzer to report on the tasks with all of the above origins of execution.

Default: @ is the default.

Rule: The exact spelling of this keyword (RUTYPE) is not important. You must, however, enter D, C, V, B, or @ in column 29.

```
           / OPER \
           | TERM |
RUNAME = < TASK >
           | GRUP |
           \ @ALL /
```

- **OPER**--specifies that tasks are to be identified by operator ID.
- **TERM**--specifies that tasks are to be identified by logical terminal ID.
- **TASK**--specifies that tasks are to be specified by task code.
- **GRUP**--specifies that tasks are to be specified by a pre-defined group ID. For CA-IDMS/Task Analyzer purposes, group ID is in bytes 17-32 of Installation Code in the USER entity of the dictionary.
- **@ALL**--specifies that CA-IDMS/Task Analyzer reports on all tasks invoked by operator ID, terminal ID, task code, and group ID.

Default: @ALL is the default.

Rule: The exact spelling of this keyword (RUNAME) is not important. You must, however, enter OPER, TERM, TASK, GRUP, or @ALL in columns 38 through 41.

NAME = name

This parameter lets you select only those task records that have a specific (or generic) task name. The field that will contain this name is specified by the RUNAME parameter.

Use this parameter to specify the actual (or generic) operator ID, logical terminal ID, task code, or group ID that a task must have in order for that task to be selected for analysis on the Abend Report.

Note: CA-IDMS/Task Analyzer will perform generic processing. For example, if you key in an asterisk (*) before a name field (i.e., NAME = *ABC), all tasks (as specified by the RUNAME parameter) whose name field begins with ABC will be included in the report.

Default: There is no default. When no characters are entered in columns 48 through 63, CA-IDMS/Task Analyzer searches for an operator, terminal, or group that has "blanks" (no characters) for an ID. If RUNAME=TASK is specified and NAME="blanks" (no characters), CA-IDMS/Task Analyzer returns an error message.

Rules:

1. The exact spelling of this keyword (NAME) is not important. You must, however, enter the name of the operator, terminal, task, or group beginning in column 48 and at the maximum ending in column 63.
2. A maximum of sixteen characters can be entered for the OPER, TERM, TASK, or GRUP name.
3. You can enter an asterisk followed by 0 to 15 characters. When an asterisk is entered followed by blanks (no characters), CA-IDMS/Task Analyzer reports on all tasks as specified by RUNAME. When an asterisk followed by 1 to 15 characters is specified, CA-IDMS/Task Analyzer reports on all tasks with names beginning with the 1 to 15 characters.

3.7 Program Loads Report Parameters

The Program Loads Report is available at one level: detail. To generate this report, use the parameter syntax listed on this page.

The parameters for CA-IDMS/Task Analyzer are positional. See below for a REPORT statement example.

The parameters are:

```
REPORT = LOAD

  [LEVL = DET ]

  ┌         / D \ ┐
  │         | C | │
  │RUTYPE = < V > │
  │         | B | │
  └         \ @ / ┘

  ┌         / OPER \ ┐
  │         | TERM | │
  │RUNAME = < TASK > │
  │         | GRUP | │
  └         \ @ALL / ┘

  [NAME = name]
```

where:

REPORT = **LOAD**

indicates that CA-IDMS/Task Analyzer is to create and print a Program Loads Report.

Rule: You must enter LOAD in columns 8 through 11.

```
EXAMPLE: REPORT STATEMENT, PROGRAM LOADS REPORT

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
REPORT=LOAD LEVL=DET RUTYPE=@ RUNAME=OPER NAME=KIKKS
```

LEVL = DET

Use this parameter to specify that you want printed the Program Loads Details Report.

- **DET**--indicates that you want CA-IDMS/Task Analyzer to print the Program Loads Details Report.

Default: DET is the default.

Rule: The exact spelling of this keyword (LEVL) is not important. You must, however, enter DET in columns 18 through 20.

```
          / D \
          | C |
RUTYPE = < V >
          | B |
          \ @ /
```

Use this parameter to specify the origin of execution for the tasks you want reported.

- **D**--indicates that you want CA-IDMS/Task Analyzer to report on the tasks with CA-IDMS/DC as the origin of execution.
- **C**--indicates that you want CA-IDMS/Task Analyzer to report on the tasks with CICS as the origin of execution.
- **V**--indicates that you want CA-IDMS/Task Analyzer to report on the tasks with VM/ESA as the origin of execution.
- **B**--indicates that you want CA-IDMS/Task Analyzer to report on the tasks with Batch as the origin of execution.
- **@**--indicates that you want CA-IDMS/Task Analyzer to report on the tasks with all of the above origins of execution.

Default: @ is the default.

Rule: The exact spelling of this keyword (RUTYPE) is not important. You must, however, enter D, C, V, B, or @ in column 29.

```
          / OPER \
          | TERM |
RUNAME = < TASK >
          | GRUP |
          \ @ALL /
```

- **OPER**--specifies that tasks are to be identified by operator ID.
- **TERM**--specifies that tasks are to be identified by logical terminal ID.
- **TASK**--specifies that tasks are to be specified by task code.
- **GRUP**--specifies that tasks are to be specified by a pre-defined group ID. For CA-IDMS/Task Analyzer purposes, group ID is in bytes 17-32 of Installation Code in the USER entity of the dictionary.
- **@ALL**--specifies that CA-IDMS/Task Analyzer reports on all tasks invoked by operator ID, terminal ID, task code, and group ID.

Default: @ALL is the default.

Rule: The exact spelling of this keyword (RUNAME) is not important. You must, however, enter OPER, TERM, TASK, GRUP, or @ALL in columns 38 through 41.

NAME = name

This parameter lets you select only those task records that have a specific (or generic) task name. The field that will contain this name is specified by the RUNAME parameter.

Use this parameter to specify the actual (or generic) operator ID, logical terminal ID, task code, or group ID that a task must have in order for that task to be selected for analysis on the Program Loads Report.

Note: CA-IDMS/Task Analyzer will perform generic processing. For example, if you key in an asterisk (*) before a name field (i.e., NAME = *ABC), all tasks (as specified by the RUNAME parameter) whose name field begins with ABC will be included in the report.

Default: There is no default. When no characters are entered in columns 48 through 63, CA-IDMS/Task Analyzer searches for an operator, terminal, or group that has "blanks" (no characters) for an ID. If RUNAME=TASK is specified and NAME="blanks" (no characters), CA-IDMS/Task Analyzer returns an error message.

Rules:

1. The exact spelling of this keyword (NAME) is not important. You must, however, enter the name of the operator, terminal, task, or group beginning in column 48 and at the maximum ending in column 63.
2. A maximum of sixteen characters can be entered for the OPER, TERM, TASK, or GRUP name.
3. You can enter an asterisk followed by 0 to 15 characters. When an asterisk is entered followed by blanks (no characters), CA-IDMS/Task Analyzer reports on all tasks as specified by RUNAME. When an asterisk followed by 1 to 15 characters is specified, CA-IDMS/Task Analyzer reports on all tasks with names beginning with the 1 to 15 characters.

3.8 Integrated Index Report Parameters

The Integrated Index Reports are available at three levels: details, summary, and system. To generate these reports, use the parameter syntax listed here.

The parameters for CA-IDMS/Task Analyzer are positional. See below for a REPORT statement example.

The parameters are:

```
REPORT = INDX

         / DET \
LEVL = < SUM >
         \ SYS /

           / D \
           | C |
RUTYPE = < V >
           | B |
           \ @ /

           / OPER \
           | TERM |
RUNAME = < TASK >
           | GRUP |
           \ @ALL /

[NAME = name]
```

where:

REPORT = INDX

indicates that CA-IDMS/Task Analyzer is to create and print an Integrated Index Report.

Rule: You must enter INDX in columns 8 through 11.

```
EXAMPLE: REPORT STATEMENT, INTEGRATED INDEX REPORT

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
REPORT=INDX LEVL=SUM RUTYPE=D RUNAME=@ALL NAME=*
```

```
       / DET \
LEVL = < SUM >
       \ SYS /
```

Use this parameter to specify the level of reporting that you want printed.

- **DET**--indicates that you want CA-IDMS/Task Analyzer to print the Integrated Index Details Report. (An Integrated Index Summary Report and an Integrated Index System Summary Report also will be produced for each time interval.)

- **SUM**--indicates that you want an Integrated Index Summary Report by program name. (An Integrated Index System Summary also will be produced for each time interval.)
- **SYS**--indicates that you want only system summaries to be produced for each time interval.

Default: DET is the default.

Rule: The exact spelling of this keyword (LEVL) is not important. You must, however, enter DET, SUM, or SYS in columns 18 through 20.

```
          / D \
          | C |
RUTYPE = < V >
          | B |
          \ @ /
```

Use this parameter to specify the origin of execution for the tasks you want reported.

- **D**--indicates that you want CA-IDMS/Task Analyzer to report on tasks with CA-IDMS/DC as the origin of execution.
- **C**--indicates that you want CA-IDMS/Task Analyzer to report on tasks with CICS as the origin of execution.
- **V**--indicates that you want CA-IDMS/Task Analyzer to report on tasks with VM/ESA as the origin of execution.
- **B**--indicates that you want CA-IDMS/Task Analyzer to report on tasks with Batch as the origin of execution.
- **@**--indicates that you want CA-IDMS/Task Analyzer to report on tasks with all of the above origins of execution.

Default: @ is the default.

Rule: The exact spelling of this keyword (RUTYPE) is not important. You must, however, enter D, C, V, B, or @ in column 29.

```
          / OPER \
          | TERM |
RUNAME = < TASK >
          | GRUP |
          \ @ALL /
```

- **OPER**--specifies that tasks are to be identified by operator ID.
- **TERM**--specifies that tasks are to be identified by logical terminal ID.
- **TASK**--specifies that tasks are to be specified by task code.
- **GRUP**--specifies that tasks are to be specified by a pre-defined group ID. For CA-IDMS/Task Analyzer purposes, group ID is in bytes 17-32 of Installation Code in the USER entity of the dictionary.

- **@ALL**--specifies that CA-IDMS/Task Analyzer reports on all tasks invoked by operator ID, terminal ID, task code, and group ID.

Default: @ALL is the default.

Rule: The exact spelling of this keyword (RUNAME) is not important. You must, however, enter OPER, TERM, TASK, GRUP, or @ALL in columns 38 through 41.

NAME = name

This parameter lets you select only those task records that have a specific (or generic) task name. The field that will contain this name is specified by the RUNAME parameter.

Use this parameter to specify the actual (or generic) operator ID, logical terminal ID, task code, or group ID that a task must have in order for that task to be selected for analysis on the Integrated Index Report.

Note: CA-IDMS/Task Analyzer will perform generic processing. For example, if you key in an asterisk (*) before a name field (i.e., NAME = *ABC), all tasks (as specified by the RUNAME parameter) whose name field begins with ABC will be included in the report.

Default: There is no default. When no characters are entered in columns 48 through 63, CA-IDMS/Task Analyzer searches for an operator, terminal, or group that has "blanks" (no characters) for an ID. If RUNAME=TASK is specified and NAME="blanks" (no characters), CA-IDMS/Task Analyzer returns an error message.

Rules:

1. The exact spelling of this keyword (NAME) is not important. You must, however, enter the name of the operator, terminal, task, or group beginning in column 48 and at the maximum ending in column 63.
2. A maximum of sixteen characters can be entered for the OPER, TERM, TASK, or GRUP name.
3. You can enter an asterisk followed by 0 to 15 characters. When an asterisk is entered followed by blanks (no characters), CA-IDMS/Task Analyzer reports on all tasks as specified by RUNAME. When an asterisk followed by 1 to 15 characters is specified, CA-IDMS/Task Analyzer reports on all tasks with names beginning with the 1 to 15 characters.

3.9 Ranking Report Parameters

To generate Ranking Reports, use the parameter syntax listed here.

The parameters for CA-IDMS/Task Analyzer are positional. See below for a Ranking REPORT statement example.

The parameters are:

```
REPORT =  RANK

          /   \
ORDER = < A >
          \ D /

[NUMBER= nnn]

          / AB \
          | EQ |
HOW = <   | LT >
          | LE |
          | GT |
          \ GE /

[WHAT =item]

[VALUE =  nnnnnnnnnnn]
```

where:

REPORT = **RANK**

indicates that CA-IDMS/Task Analyzer is to create and print a Ranking Report.

Rule: You must enter RANK in columns 8 through 11.

```
EXAMPLE: REPORT STATEMENT, RANKING REPORT

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
REPORT=RANK ORDER=D NUMBER=050 HOW=GT WHAT=TERMREAD  VALUE=00000000001000
```

```
          /   \
ORDER = < A >
          \ D /
```

Use this parameter to specify the order in which the tasks are to be reported.

- **A**--indicates that you want CA-IDMS/Task Analyzer to print the Ranking Report in ascending order, with the task with the lowest value printed first and the task with the highest value printed last.
- **D**--indicates that you want CA-IDMS/Task Analyzer to print the Ranking Report in descending order, with the task with the highest value printed first and the task with the lowest value printed last.

Default: **A**, for ascending, is the default.

Rule: The exact spelling of this keyword (ORDER) is not important. You must, however, enter **A** or **D** in column 19.

NUMBER=nnn

After all of the tasks have been selected and ranked, you may also request how many you want to see on the Ranking Report. For example, if you only want to see the first 10 when ranked according to your ORDER and HOW parameters, specify **NUMBER** = 010.

Use this parameter to specify the number of items to be reported on the Ranking Report.

Default: The default value is 020 (that is, 20 tasks will be listed on the report).

Rules:

1. The maximum number of tasks that can be reported is 999.
2. The exact spelling of this keyword (**NUMBER**) is not important. You must, however, enter a three digit number in columns 28 through 30.
3. You must include leading zeroes ('0's). For example, if you want to indicate 5 tasks, you must specify “005”.

```
        / AB \
        | EQ |
HOW = < LT >
        | LE |
        | GT |
        \ GE /
```

Use this keyword to specify how the attribute you select is to be ranked. There are six methods to choose from.

- **AB**--indicates that tasks are to be ranked by the value of the attribute from the specified task. If you specify **AB**, you will obtain a report on all tasks compared by the item following the WHAT parameter.
- **EQ**--the attribute will be ranked from a value EQUAL to the specified value.
- **LT**--the attribute will be ranked from a value LESS THAN the specified value.
- **LE**--the attribute will be ranked from a value LESS than or EQUAL to the specified value.
- **GT**--the attribute will be ranked from a value GREATER THAN the specified value.
- **GE**--the attribute will be ranked from a value GREATER than or EQUAL to the specified value.

Default: The default is **AB**, for ABSOLUTE.

Rule: The exact spelling of this keyword is not important. You must, however, enter **AB**, **EQ**, **LT**, **LE**, **GT**, or **GE** in columns 36 and 37.

WHAT = item

specifies which attribute is to be ranked in the report (see Table 3-2).

Default: There is no default for the WHAT parameter. You must select one of the available items.

Rules:

1. The exact spelling of this keyword (WHAT) is not important. You must, however, enter the item in columns 44 through 52.
2. You must spell the item exactly as it is presented in Table 3-2.

Item	Attribute
BTREE	Number of integrated index searches
BTREELEVL	Number of levels required to complete a search
CLOCK	Clock time
CPU	CPU time
DBCALL	DML verbs
DETPUTNEW	New details written (pageable maps)
DETPUTCUR	Current details written (pageable maps)
DETGET	Details read (pageable maps)
DISPLAY	Number of display commands
INVOKE	Number of invoke commands
I/O	Physical I/Os
LEAVE	Number of leave commands
LINK	Number of link commands
LINKMAX	Maximum number of links
LINKMIN	Minimum number of links
ORPHANS	SR8 orphans adopted
PREMAP	Premap processes
QUEUEDEL	Records deleted (queue)
QUEUEGET	Records read (queue)
QUEUEPUT	Records written (queue)

Item	Attribute
RBBMAX	Maximum size of record buffer blocks
RBBMIN	Minimum size of record buffer blocks
RESPONSE	Response processes
RETURN	Number of return commands
SCRTCHDEL	Records deleted (scratch)
SCRTCHGET	Records read (scratch)
SCRTCHPUT	Records written (scratch)
SR7ERASED	SR7s erased
SR7STORED	SR7s stored
SR8ERASED	SR8s erased
SR8SPAWN	SR8 spawns occurring
SR8SPLIT	SR8 splits occurring
SR8STORED	SR8s stored
STORACQUR	Storage acquired
STORALLOC	Storage allocated
STORKEPT	Storage kept
SYSTEM	System time
TERMERROR	Terminal errors
TERMI/O	Terminal I/Os
TERMREAD	Terminal reads
TERMWRITE	Terminal writes
TRANSFER	Number of transfer commands
USER	User time
WAIT	CPU wait time

Table 3-2. Task Analyzer Ranking Report WHAT Attributes

VALUE = nnnnnnnnnnnn

indicates what numeric value is to be used for comparison, where

- **nnnnnnnnnnnn** represents a twelve digit number. The number can indicate quantity or time, depending upon the attribute specified after the **WHAT** parameter (columns 44 through 52). When time is indicated, units are presented in 1/10,000ths of a second.

Default: The default is “blank,” which indicates that all tasks are to be ranked by the ABSOLUTE value, as specified after the **HOW** parameter (columns 36 and 37).

Rules:

1. The exact spelling of this keyword (VALUE) is not important. You must, however, enter a twelve digit number in columns 60 through 71.
2. You must include leading and trailing zeroes ('0's). For example, if you want to indicate 10 seconds, you must specify “000000100000”.
3. If you leave the columns 60 through 71 blank, then you must specify **AB** after the **HOW** parameter (columns 36 and 37); or, leave columns 36 and 37 blank. Otherwise, no ranking report will be generated.
4. Do not include commas or decimal points.

```
PROCESS  [DCSYSRUN={Y}]  [IDMSXXXX={Y}] [START=mmddyyhhmm][STOP=mmddyyhhmm]
         [         {N}]           {N}]
[*PROCESS]  [CVNUM={@ALL}]  [PLANID={@ALL    }]
            [      {nnnn}]  [       {nnnnnnnn}]
       {                    [       {D}] [       {OPER}]            }
       {        [     {DET}][       {C}.] [       {TERM}]            }
       {  BILL  [LEVL={SUM}][RUTYPE={V}] [RUNAME={TASK}] [NAME=name]}
       {        [     {SYS}][       {B}.] [       {GRUP}]            }
       {                    [       {@}] [       {@ALL}]            }
       {                                                            }
       {                    [       {D}] [       {OPER}]            }
       {        [     {DET}][       {C}.] [       {TERM}]            }
REPORT={  PROG  [LEVL={SUM}][RUTYPE={V}] [RUNAME={TASK}] [NAME=name]}
       {        [     {SYS}][       {B}.] [       {GRUP}]            }
       {                    [       {@}] [       {@ALL}]            }
       {                                                            }
       {                    [       {D}] [       {OPER}]            }
       {        [     {DET}][       {C}.] [       {TERM}]            }
       {   ADSO [LEVL={SUM}][RUTYPE={V}] [RUNAME={TASK}] [NAME=name]}
       {        [     {SYS}][       {@}.] [       {GRUP}]            }
       {                                  [       {@ALL}]            }
       {                    [       {D}] [       {OPER}]            }
       {                    [       {C}] [       {TERM}]            }
       {  ABND  [LEVL=DET]  [RUTYPE={V}] [RUNAME={TASK}] [NAME=name]}
       {                    [       {B}] [       {GRUP}]            }
       {                    [       {@}] [       {@ALL}]            }
       {                                                            }
       {                    [       {D}] [       {OPER}]            }
       {                    [     {C}]   [       {TERM}]            }
REPORT={  LOAD  [LEVL=DET]  [RUTYPE={V}] [RUNAME={TASK}] [NAME=name]}
       {                    [     {B}]   [       {GRUP}]            }
       {                    [      {@}] [       {@ALL}]            }
       {                                                            }
       {                    [       {D}] [       {OPER}]            }
       {      [     {DET}]  [     {C}.] [       {TERM}]            }
       {INDEX [LEVL={SUM}]  [RUTYPE={V}] [RUNAME={TASK}] [NAME=name]}
       {      [     {SYS}]  [      {@}.] [       {GRUP}]            }
       {                    [            [       {@ALL}]            }

                                       [    {AB}]
                                       [    {EQ}]
        RANK [ORDER={A}] [NUMBER=nnn] [HOW={LT}]
             [      {D}]              [    {LE}]
                                       [    {GT}]
                                       [    {GE}]

            [WHAT=item] [VALUE=nnnnnnnnnnnn]
```

Figure 3-1. Parameter Summary

Note: In the START and STOP keywords, the year is assumed to be 2000 if you specify less than 69; the year is assumed to be 1900 if you specify 69 or greater.

```
EXAMPLE: PROCESS STATEMENT

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
PROCESS DCSYSRUS=Y IDMSXXXX=Y START=0420862030 STOP=0420862359
*PROCESS CVNUM=0254 PLANID-PLAN1111


EXAMPLE: REPORT STATEMENT, BILLING REPORT

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
REPORT=BILL LEVL=DET RUTYPE=D RUNAME=@ALL NAME=*


EXAMPLE: REPORT STATEMENT, PROGRAM REPORT

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
REPORT=PROG LEVL=SUM RUTYPE=C RUNAME=GRUP NAME=EXAMY


EXAMPLE: REPORT STATEMENT, ADS/O REPORT

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
REPORT=ADSO LEVL=SYS RUTYPE=V RUNAME=TASK NAME=EPOSED


EXAMPLE: REPORT STATEMENT, ABEND REPORT

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
REPORT=ABND LEVL=DET RUTYPE=B RUNAME=@ALL NAME=TERKK


EXAMPLE: REPORT STATEMENT, PROGRAM LOADS REPORT

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
REPORT=LOAD LEVL=DET RUTYPE=@ RUNAME=OPER NAME=KIKKS


EXAMPLE: REPORT STATEMENT, INTEGRATED INDEX REPORT

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
REPORT=INDX LEVL=SUM RUTYPE=D RUNAME=@ALL NAME=*


EXAMPLE: REPORT STATEMENT, RANKING REPORT

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
REPORT=RANK ORDER=D NUMBER=050 HOW=GT WHAT=TERMREAD  VALUE=000000001000
```

Figure 3-2. Parameter Statement Examples Summary

Chapter 4. Operations

This chapter describes the operating requirements, the statistics plan options, and the JCL procedures for all operating environments.

4.1 CA-IDMS/Task Analyzer Operating Requirements

- **Operating System**: OS/390; VSE/ESA; VM/ESA
- **Computer Associates, Inc.**: CA-IDMS 15.0
- **Terminal Type**: All 3270-type terminals, models 2 through 5
- **Storage Requirement**:
  - **Program Storage:** RHDCUXIT increases by 14K, and USFAOPT (Statistics Plan program) needs 11K of reentrant pool program storage.
  - **Storage Pool Usage:** For exit processing, each CA-IDMS task acquires the following number of bytes:

    ```
    440 + (128 * maximum load/links)
    ```

  For the default of 16 maximum load/link levels, this would be 2488 bytes per CA-IDMS task. USFAOPT (Statistics Plan program) needs 3656 bytes.
- **Queue Storage**: CA-IDMS/Task Analyzer uses 120 bytes of queue storage, having a storage ID of CA-IDMS/Task Analyzer.
- **Pre-5.0 Release Considerations**: Pre-5.0 CA-IDMS/Task Analyzer record formats are not compatible with 15.0 CA-IDMS/Task Analyzer record formats.
- **User Exit Considerations**: If you add or subtract exit 0, 3, 4, 5, 13, or 15 after your initial installation of CA-IDMS/Task Analyzer, you must regenerate the USFUEXT table to reflect that change. If you add or subtract an exit other than 0, 3, 4, 5, 13, or 15 after your initial installation of CA-IDMS/Task Analyzer, you must regenerate the Computer Associates, Inc. version of RHDCUXIT to reflect that change. See the *CA-IDMS Installation and Maintenance Guide* for instructions.
- **GSISVCX module customization**: GSISVCX, the CA-IDMS TOOLS version of the assembler language module IDMSSVCX is designed to create a 40-position extension to the CA-IDMS External Request Element control block (ERE). The type of data that is placed into these 40 positions by the module depends, in part, on whether the run-unit being processed is identified by CA-IDMS as BATCH or CICS.
  - **For any type of run-unit**—the JOBNAME, the run-unit start date and time, and the step start time are moved into the ERE by GSISVCX.
  - **For BATCH run-units**—up to 16 bytes of information contained in the account field of the jobcard are moved into the ERE by GSISVCX.
  - **For CICS run-units**—the transaction ID, terminal ID, and operator ID are moved into the ERE by GSISVCX. You will need to customize this module if your installation already uses a version of IDMSSVCX and that function must be retained for continued use: if your account number is not in the first field of the OS/390 JOB ACCT parameter; if your installation uses a TP monitor other than CICS; or if the data moved into the ERE is not sufficient for your billing system requirements.

To customize GSISVCX, your systems programmer must make the desired changes to the source code. See the *CA-IDMS Installation and Maintenance Guide* for detailed information.

When altering the source code for GSISVCX, follow these guidelines:

- The ERE may be defined as any length between 40 and 32767 but only the first 40 positions will be written by CA-IDMS to the Task Statistics Record.
- After the GSISVCX source code is modified, the CA-IDMS SVC macro must be reassembled. See the *CA-IDMS Installation and Maintenance Guide* for detailed information.

4.2 CA-IDMS/Task Analyzer Statistics Plan Options

CA-IDMS/Task Analyzer has an online front-end with which you specify options to control the collection and writing of statistics. Selection of these options creates your statistics plan for CA-IDMS/Task Analyzer.

One of the main features of the statistics plan is the ability to assign a Plan ID to any collection run. If you make changes to CA-IDMS/DC (e.g. maintenance tapes, new applications) and assign a different Plan ID to the collection run, you can generate reports by the new Plan ID and compare them to reports of other collection runs.

The Statistics Control Planning screen is divided into three areas: collection control, exit control, and write control.

The collection control area lets you specify what statistics are to be collected and what, if any, programs and/or tasks can be excluded from collection.

The exit control area lets you enable or disable CA-IDMS/DC user exits in three ways: all user exits, CA-IDMS/Task Analyzer exits, and specific user exits. In addition, hours of operation can be specified for the CA-IDMS/Task Analyzer exits as a group.

The write control area lets you specify whether to write statistics to the CA-IDMS/DC Log and/or the SMF file, and also gives you several SMF options.

See Figure 4-1 on page 4-7 and the descriptions that follow.

To specify statistics collection options, call up the Statistics Collection Planning screen by entering task USFAOPT from the CA-IDMS/DC prompt. Then tab to each field you want to change from the default. To update the plan with options you have specified, press ENTER. If errors have been made, a general error message is displayed. To get help on a specific error, press the PF1 key. To exit the screen, press the CLEAR key or the PF3 key.

4.2.1 Screen Fields

Here is a description of the fields that appear on the Statistics Collection Planning screen. See Figure 4-1 on page 4-7.

PLAN ID—Enter 8 alpha-numeric characters to identify the statistics plan. PLAN ID may be used to identify the type of environment that CA-IDMS/Task Analyzer is operating in. For example, you may want to use PLAN ID to identify the CA-IDMS maintenance level currently installed or to identify the type of CA-IDMS/Task Analyzer processing.

DATABASE—Specify Y (yes) if you want CA-IDMS/Task Analyzer to collect database statistics including those for integrated indexes or N (no) if you do not want CA-IDMS/Task Analyzer to collect database statistics.

ADS—Specify Y (yes) if you want CA-IDMS/Task Analyzer to collect CA-ADS statistics or N (no) if you do not want CA-IDMS/Task Analyzer to collect CA-ADS statistics.

PROGRAM—Specify Y (yes) if you want CA-IDMS/Task Analyzer to collect program statistics or N (no) if you do not want CA-IDMS/Task Analyzer to collect program statistics.

```
Rnn.nn            CA-IDMS/Task Analyzer                      hh:mm mm/dd/yy
USFMOPT           STATISTICS COLLECTION PLANNING SCREEN      PLAN ID:  PLAN0001
 COLLECTION CONTROL:
    DATABASE:  Y    ADS:   Y    PROGRAM: N   DC/INTERNAL: N
    LOAD/LINK: Y    ERUS:  Y    MAXIMUM LOAD/LINK LEVELS: 129
  EXCLUDE:
    OPTION  NAME    OPTION  NAME    OPTION  NAME    OPTION  NAME
      P    CRUAL___   _    ________   _    ________   _    ________
      _    ________   _    ________   _    ________   _    _____

 EXIT CONTROL:
    GLOBAL     STATUS:  _      => ACTIVE
    COLLECTION STATUS:  _   FROM: 00 : 00  TO: 24 : 00  => ACTIVE
    (SUN/MON/TUE/WED/THU/FRI/SAT) DAY OF WEEK: WED   TO    FRI
    O  EXIT MODE  NAME      STATUS        O  EXIT MODE  NAME      STATUS
    _    04   DC  SSK2IT04  ACTIVE           13        (NONE)   DISABLED
         05        (NONE)   DISABLED         15        (NONE)   DISABLED

 WRITE CONTROL:
    LOG FILE: Y    LOG TYPE: 2   DC STATISTICS: Y  OS/SMF: N
  SMF OPTIONS:
    NUMBER: 129    BLOCK MODE: 1    BLOCK SIZE: 04096   JES ID: XE06
    AUTHORIZATION MODE: 1      AUTHORIZATION SVC: 247
```

Figure 4-1. CA-IDMS/Task Analyzer Statistics Collection Planning Screen

DC/INTERNAL—Specify Y (yes) if you want CA-IDMS/Task Analyzer to collect CA-IDMS/DC internal tasks statistics or N (no) if you do not want CA-IDMS/Task Analyzer to collect CA-IDMS/DC internal tasks statistics.

LOAD/LINK—Specify Y (for yes) if you want CA-IDMS/Task Analyzer to collect program load statistics. Specify N (for no) if you do not want CA-IDMS/Task Analyzer to collect program load statistics.

ERUS—Specify Y (for yes) if you want CA-IDMS/Task Analyzer to collect external run unit statistics. Specify N (for no) if you do not want CA-IDMS/Task Analyzer to collect external run unit statistics.

MAXIMUM LOAD/LINK LEVELS—Specify the program load threshold for tasks. The program load threshold is the maximum number of modules loaded by a task acceptable in your environment. If the maximum number of modules is exceeded, the

task that exceeds the threshold is identified on the Program Loads Report. The default is 16.

EXCLUDE—If you want to specifically exclude programs and/or tasks from CA-IDMS/Task Analyzer statistics collection (thereby reducing overhead), you may identify them here. To exclude a program, specify P and a program name. To exclude a task, specify T and a task name. To exclude groups of related tasks and/or programs, specify a T or P and a mask for the name. For example, to exclude all programs with names beginning with 'ABC', specify P and ABC##### for the name.

CA-IDMS/Task Analyzer will bypass statistical collection for programs having a matching value in PDEPGMID of the Program Definition Element. **CA-IDMS/Task Analyzer will bypass** statistical collection for tasks having a matching value in TDETSKCD of the Task Definition Element.

To remove programs or tasks from the exclusion list, specify D and the appropriate name.

GLOBAL STATUS—Specify E to enable or D to disable all CA-IDMS/DC user exits, including CA-IDMS/Task Analyzer collection exits. If you disable all exits, CA-IDMS/DC statistics collection is disabled. The default is E.

COLLECTION STATUS—Specify E to enable or D to disable the CA-IDMS/Task Analyzer collection exits. You may also choose the hours of operation. You may also choose the days of operation. The default is E.

O (for Option)—Specify E to enable or D to disable specific user exits that were previously specified in the USFUEXT table. Each installed exit is identified with its specific exit number, its mode ((D) for CA-IDMS/DC or (S) for IBM), its name, and its current status (active or disabled). The default is E.

LOG FILE—Specify Y (yes) if you want CA-IDMS/Task Analyzer to write its statistics to the CA-IDMS Log. Specify N (no) if you do not want CA-IDMS/Task Analyzer to write its statistics to the CA-IDMS Log. The default is Y.

LOG TYPE—Specify the record type to be used by CA-IDMS/Task Analyzer when writing records to the CA-IDMS/DC Log. Record types of 1 (messages), 2 (trace), or 4 (snap/dump) may be specified. The default is 2 (trace).

DC STATISTICS—Specify Y (yes) if you want the CA-IDMS/DC task statistics gathered by CA-IDMS written to the CA-IDMS/DC Log. Specify N (no) if you do not want the CA-IDMS/DC task statistics gathered by CA-IDMS written to the CA-IDMS/DC Log. The default is Y. However, if CA-IDMS/DC task statistics gathered by CA-IDMS are written to the Log, they will duplicate many of the CA-IDMS/DC task statistics collected by CA-IDMS/Task Analyzer.

OS/390—Specify Y (yes) if you want CA-IDMS/Task Analyzer to write its statistics to the SMF file. Specify N (no) if you do not want CA-IDMS/Task Analyzer to write its statistics to the SMF file. The default is N. This option applies to OS/390 only.

NUMBER—Specify the OS/390 SMF file user record number. The default is 129.

BLOCK MODE—Specify the block mode for writing statistics to the SMF file. Specify 1 for maximum blocking efficiency. Specify 2 for blocking by transaction (that is, only those statistics for a specific transaction are included in a single SMF record).

BLOCK SIZE—Specify the block size for the SMF file. The default is 4096. If block mode is 1, you must specify a minimum block size of (150 * the maximum number of links).

JES ID—The JES ID that CA-IDMS/Task Analyzer includes on the records written to SMF is displayed here.

AUTHORIZATION MODE&MDASH.SPECIFY THE MODE IN WHICH THE SMF RECORDS ARE WRITTEN&PER. SPECIFY 1 IF THE CA-IDMS CV REGION IS AUTHORIZED TO WRITE TO SMF&PER. SPECIFY 2 IF THE CA-IDMS/TASK ANALYZER SVC FOR SMF IS INSTALLED&PER.

AUTHORIZATION SVC—If the authorization mode is 2, specify the specific SVC number for the CA-IDMS/Task Analyzer SMF SVC.

4.3 OS/390 Operations

Depending upon the collection options you specify on the Statistics Collection Planning screen, you may want to consider how frequently you archive the CA-IDMS Log, or whether you should use multiple logs to store large quantities of statistics.

To collect batch run-unit statistics, install the CA-IDMS SVC exit module GSISVCX supplied with CA-IDMS/Task Analyzer. To use authorization mode 2 with SMF, the CA-IDMS/Task Analyzer SVC (USFASVC) must be installed. See the *CA-IDMS Installation and Maintenance Guide* for detailed information.

CA-IDMS/Task Analyzer report programs are written in CA-Culprit. To customize CA-IDMS/Task Analyzer reports, copy the report program modules from your dictionary, and then modify the programs to create reports that meet your current needs. The following list contains the report program module names and the reports each program generates:

- USFPBILL — Billing Reports
- USFPPROG — Program Reports
- USFPADSO — CA-ADS Reports
- USFPABND — Abend Reports
- USFPLOAD — Program Loads Reports
- USFPINDX — Integrated Index Reports
- USFPRANK — Ranking Reports

The following JCL required to direct CA-IDMS/Task Analyzer was cataloged during installation:

1. To create an Extract File from the CA-IDMS Log, modify and run the CA-IDMS/Task Analyzer Extract JCL contained in Target or Distribution source library member USFEXLOG.
2. To create an Extract File from the SMF File, modify and run the CA-IDMS/Task Analyzer Extract JCL contained in Target or Distribution source library member USFEXSMF.
3. To create CA-IDMS/Task Analyzer reports from the Extract File, modify and run the CA-IDMS/Task Analyzer Report Execution JCL contained in Target or Distribution source library member USFREPT.

JCL samples are shown on the following pages.

4.3.1 JCL to Create an Extract File from the CA-IDMS Log

Use this JCL to extract data from the CA-IDMS Archive Log file and reformat it for input into the CA-IDMS/Task Analyzer reporting process. A key to the required variables (shown in **bold**) follows the JCL.

```
//USFEXLOG JOB  (job card parameters)
//*
//*********************************************************************
//* EXTRACTS DATA FROM THE CA-IDMS ARCHIVE LOG FILE AND REFORMATS IT *
//* FOR INPUT INTO THE CA-IDMS/Task Analyzer REPORTING PROCESS       *
//* THE FOLLOWING VARIABLES MUST BE SUPPLIED:                        *
//*                                                                  *
//* your.idms.loadlib        - The load library where CA-IDMS was    *
//*                            installed.                            *
//* printout                 - SYSOUT print class.                   *
//* errorout                 - ERROR print class.                    *
//* wrkunit                  - Work unit.                            *
//* your.idms.sysctl         - SYSCTL when running in CV mode.       *
//* local-dmcl               - Local DMCL name.                      *
//* dictname                 - DBNAME of dictionary containing       *
//*                            CA-IDMS/Task Analyzer Culprit source. *
//* your.sortlib             - System SORT library.                  *
//* your.idms.plog           - CA-IDMS archive PLOG.                 *
//* your.taska.extract       - CA-IDMS/Task Analyzer extract file.   *
//*********************************************************************
//*
//*  OPTIONAL STEP TO DELETE CA-IDMS/Task Analyzer EXTRACT FILE.
//*  IF THIS STEP IS NOT USED, AND YOU INTEND ON USING A PREVIOUSLY
//*  CREATED FILE, STEP CULL4 MUST BE CHANGED TO MAKE THIS FILE
//*  DISP=SHR.
//*
//*DELETE EXEC PGM=IEFBR14
//*DD1      DD  DSN=your.taska.extract,DISP=(MOD,DELETE),
```

```
//*             UNIT=DISK,SPACE=(TRK,0)
//*
//CULL0    EXEC PGM=CULP0,REGION=4048K
//STEPLIB  DD  DISP=SHR,DSN=your.idms.loadlib
//SYSOUT   DD  SYSOUT=printout
//SYSPRINT DD  SYSOUT=printout
//SYSUDUMP DD  SYSOUT=errorout
//SYS004   DD  SYSOUT=printout,
//         DCB=(RECFM=FBA,LRECL=133,BLKSIZE=1330)
//SYS005   DD  DISP=(NEW,PASS),
//         DSN=&&UPRMWORK,UNIT=wrkunit,
//         SPACE=(CYL,(10,5),RLSE),
//         DCB=(RECFM=F,LRECL=320,BLKSIZE=320)
//SYSCTL   DD  DISP=SHR,DSN=your.idms.sysctl
//SYSIDMS  DD  *
 DMCL=local-dmcl
 DBNAME=dictname
/*
//SYSIN    DD  *
 PARAM=NOLIST
=COPY 'USFPEXTR' 1
//*
//CULL1    EXEC PGM=SORT,PARM='MSG,AP',REGION=500K
//SORTLIB  DD  DISP=SHR,DSN=your.sortlib
//SORTWK01 DD  UNIT=wrkunit,SPACE=(CYL,(5),,CONTIG)
//SORTWK02 DD  UNIT=wrkunit,SPACE=(CYL,(5),,CONTIG)
//SORTWK03 DD  UNIT=wrkunit,SPACE=(CYL,(5),,CONTIG)
//SORTWK04 DD  UNIT=wrkunit,SPACE=(CYL,(5),,CONTIG)
//SORTOUT  DD  DSN=&&SPRMWORK,UNIT=wrkunit,
//         SPACE=(CYL,(5),,CONTIG),
//         DISP=(NEW,PASS),
//         DCB=(RECFM=F,LRECL=320,BLKSIZE=320)
//SYSOUT   DD  SYSOUT=printout
//SYSPRINT DD  SYSOUT=printout
//SYSUDUMP DD  SYSOUT=errorout
//SORTIN   DD  DISP=(OLD,DELETE),DSN=&&UPRMWORK
//SYSIN    DD  *
 SORT FIELDS=(1,69,A),FORMAT=BI
 RECORD TYPE=F,LENGTH=(320,,320)
 END
/*
//*
//CULL2    EXEC PGM=CULL,REGION=4048K
//STEPLIB  DD  DISP=SHR,DSN=your.idms.loadlib
//SYS010   DD  DISP=SHR,DSN=your.idms.plog
//SYSCTL   DD  DISP=SHR,DSN=your.idms.sysctl
//SYSIDMS  DD  *
 IDMSDBUG=OFF
/*
//SYSUDUMP DD  SYSOUT=errorout
//SYS004   DD  SYSOUT=printout,
//         DCB=(RECFM=FBA,LRECL=133,BLKSIZE=1330)
```

```
//SYS005   DD  DSN=&&SPRMWORK,DISP=(OLD,DELETE)
//SYS006   DD  DISP=(NEW,PASS),
//         DSN=&&UEXTWORK,UNIT=wrkunit,
//         SPACE=(CYL,(10,5),RLSE),
//         DCB=(RECFM=VB,LRECL=1000,BLKSIZE=1004)
//SYS007   DD  DISP=(NEW,PASS),
//         DSN=&&SRTPWORK,UNIT=wrkunit,
//         SPACE=(TRK,(1,1),RLSE),
//         DCB=(RECFM=F,LRECL=80,BLKSIZE=80)
//SYS008   DD  DISP=(NEW,PASS),
//         DSN=&&NSRTWORK,UNIT=wrkunit,
//         SPACE=(CYL,(10,5),RLSE),
//         DCB=(RECFM=VB,LRECL=1000,BLKSIZE=1004)
//*
//CULL3    EXEC PGM=SORT,PARM='MSG,AP',REGION=500K
//SORTLIB  DD  DISP=SHR,DSN=your.sortlib
//SORTWK01 DD  UNIT=wrkunit,SPACE=(CYL,(5),,CONTIG)
//SORTWK02 DD  UNIT=wrkunit,SPACE=(CYL,(5),,CONTIG)
//SORTWK03 DD  UNIT=wrkunit,SPACE=(CYL,(5),,CONTIG)
//SORTWK04 DD  UNIT=wrkunit,SPACE=(CYL,(5),,CONTIG)
//SORTOUT  DD  DSN=&&SEXTWORK,UNIT=SYSDA,
//         SPACE=(CYL,(5,5),,CONTIG),
//         DISP=(NEW,PASS),
//         DCB=(RECFM=VB,LRECL=1000,BLKSIZE=1004)
//SYSOUT   DD  SYSOUT=printout
//SYSPRINT DD  SYSOUT=printout
//SYSUDUMP DD  SYSOUT=errorout
//SORTIN   DD  DISP=(OLD,DELETE),DSN=&&UEXTWORK
//SYSIN    DD  DISP=(OLD,DELETE),DSN=&&SRTPWORK
//*
//CULL4    EXEC PGM=CULE,REGION=548K
//STEPLIB  DD  DISP=SHR,DSN=your.idms.loadlib
//SYS020   DD  DSN=your.taska.extract,
//         UNIT=DISK,
//         VOL=SER=WRK06A,
//         SPACE=(CYL,(10,5),RLSE),
//         DISP=(NEW,CATLG,DELETE),
//         DCB=(RECFM=FB,LRECL=200,BLKSIZE=6200)
//SYSCTL   DD  DISP=SHR,DSN=your.idms.sysctl
//SYSIDMS  DD  *
 IDMSDBUG=OFF
/*
//SYSUDUMP DD  SYSOUT=errorout
//SYS004   DD  SYSOUT=printout,
//         DCB=(RECFM=FBA,LRECL=133,BLKSIZE=1330)
//SYS006   DD  DISP=(OLD,DELETE),DSN=&&SEXTWORK
//SYS008   DD  DISP=(OLD,DELETE),DSN=&&NSRTWORK
//SYSABEND DD  SYSOUT=*,OUTLIM=0
//SYSIN4   DD  DUMMY
//
```

Note: See Appendix A, “CA-Culprit Procedure” on page A-1 for the CA-IDMS/Task Analyzer CA-Culprit procedure used by USFEXLOG.

- **job card parameters** — The job card parameters required at your installation.
- **your.idms.loadlib** — The load library where CA-IDMS was installed.
- **printout** — SYSOUT print class.

- **errorout** — ERROR print class.
- **wrkunit** — Work unit.
- **your.idms.sysctl** — The name of the SYSCTL when running in CV mode.
- **local-dmcl** — The local DMCL name.
- **dictname** — The DBNAME of the dictionary containing CA-IDMS/Task Analyzer CA-Culprit source.
- **your.sortlib** — The system SORT library.
- **your.idms.plog** — CA-IDMS archive PLOG.
- **your.taska.extract** — CA-IDMS/Task Analyzer Extract file.

4.3.2 JCL to Create an Extract File from the SMF File

Use this JCL to extract CA-IDMS/Task Analyzer record from an SMF dump file and format the data for input into the CA-IDMS/Task Analyzer reporting process. A key to the variables (shown in **bold**) and the return codes follows the JCL.

```
//USFEXSMF JOB  (job card parameters)
  //*
  //*********************************************************************
  //* EXTRACTS CA-IDMS/Task Analyzer RECORDS FROM AN SMF DUMP FILE AND *
  //* FORMATS THE DATA FOR INPUT INTO THE CA-IDMS/Task Analyzer        *
  //* REPORTING PROCESS                                               *
  //* THE FOLLOWING VARIABLES MUST BE SUPPLIED:                       *
  //*                                                                 *
  //* smfrecid                - The SMF file user record number as    *
  //*                           specified on the USFAOPT screen.      *
  //* your.loadlib            - The appropriate STEPLIB DSNAME(s).    *
  //* printout                - SYSOUT print class.                   *
  //* errorout                - ERROR print class.                    *
  //* your.taska.extract      - CA-IDMS/Task Analyzer extract file.   *
  //* wrkunit                 - Work unit.                            *
  //* blkout                  - CA-IDMS/Task Analyzer extract block   *
  //*                           size.                                 *
  //* your.smf.dump.file      - The DSNAME of the SMF dump file to be *
  //*                           processed.                            *
```

```
//*                                                                   *
//* RETURN CODES:  0 Successful creation of CA-IDMS/Task Analyzer     *
//*                  file                                             *
//*                4 No SMF rec id parameter was supllied, Defaults   *
//*                  to '129'                                         *
//*                8 No records were extracted from the SMF dump      *
//*                  file                                             *
//*               16 Condition code indicates that an error occurred  *
//*                  during this run - See report listing for error   *
//*                  messages                                         *
//* ******************************************************************
//*
//*  OPTIONAL STEP TO DELETE CA-IDMS/Task Analyzer EXTRACT FILE.
//*  IF THIS STEP IS NOT USED, AND YOU INTEND ON USING A PREVIOUSLY
//*  CREATED FILE, STEP SMFEXTR MUST BE CHANGED TO MAKE THIS FILE
//*  DISP=SHR.
//*
//*DELETE EXEC PGM=IEFBR14
//*DD1      DD  DSN=your.taska.extract,DISP=(MOD,DELETE),
//*             UNIT=DISK,SPACE=(TRK,0)
//*
//SMFEXTR  EXEC PGM=USFSMFEX,REGION=256K,PARM='smfrecid'
//STEPLIB  DD  DISP=SHR,DSN=your.loadlib
//*
//REPORT   DD  SYSOUT=printout
//SYSUDUMP DD  SYSOUT=errorout
//OUTFILE  DD  DSN=your.taska.extract,
//             DISP=(NEW,CATLG,DELETE),
//             UNIT=wrkunit,
//             SPACE=(CYL,(5,5),RLSE),
//             DCB=(RECFM=FB,LRECL=200,BLKSIZE=blksize)
//SMFDATA  DD  DSN=your.smf.dump.file,
//             DISP=SHR
```

- **job card parameters** — The job card parameters required at your installation.
- **smfrecid** — The SMF file user record number as specified on the USFAOPT screen.
- **your.loadlib** — The appropriate STEPLIB DSNAME(s).
- **printout** — The SYSOUT print class.
- **errorout** — The ERROR print class.
- **your.taska.extract** — The CA-IDMS/Task Analyzer extract file.
- **wrkunit** — Work unit.
- **blksize** — The CA-IDMS/Task Analyzer extract block size.
- **your.smf.dump.file** — The DSNAME of the SMF dump file to be processed.
- **Return Codes:**
  - 0 — Successful creation of a CA-IDMS/Task Analyzer file.
  - 4 — No SMF rec ID parameter was supplied. The parameter defaults to '129'.
  - 8 — No records were extracted from the SMF dump file.

– 16 — Condition indicates that an error occurred during this run. See the report listing for error messages.

4.3.3 Report Execution JCL

Use this JCL to generate CA-IDMS/Task Analyzer reports. A key to the variables (shown in **bold**) follows the JCL.

```
//USFREPT  JOB  (job card parameters)
  //*
  //*********************************************************************
  //* GENERATES CA-IDMS/Task Analyzer REPORTS.                          *
  //* THE FOLLOWING VARIABLES MUST BE SUPPLIED:                         *
  //*                                                                   *
  //* your.idms.loadlib        - The load library where CA-IDMS was     *
  //*                            installed.                             *
  //* your.idms.sysctl         - SYSCTL when running in CV mode.        *
  //* printout                 - SYSOUT print class.                    *
  //* errorout                 - ERROR print class.                     *
  //* wrkunit                  - Work unit.                             *
  //* primary                  - Primary SORT CYL(inder) allocation.    *
  //* secondary                - Secondary SORT CYL(inder) allocation.  *
  //* your.taska.extract       - CA-IDMS/Task Analyzer extract file.    *
  //* your.sorted.taska.extract- Sorted CA-IDMS/Task Analyzer extract   *
  //*                            file.                                  *
  //* primout                  - Sorted CA-IDMS/Task Analyzer extract   *
  //*                            primary CYL(inder) allocation.         *
  //* secout                   - Sorted CA-IDMS/Task Analyzer extract   *
  //*                            secondary CYL(inder) allocation.       *
  //* blkout                   - Sorted CA-IDMS/Task Analyzer extract   *
  //*                            block size.                            *
  //* local-dmcl               - Local DMCL name.                       *
  //* dictname                 - DBNAME of dictionary containing        *
  //*                            CA-IDMS/Task Analyzer Culprit source.  *
  //* your.sortlib             - System SORT library.                   *
  //*********************************************************************
```

```
//*
//*  OPTIONAL STEP TO DELETE CA-IDMS/Task Analyzer EXTRACT FILE.
//*  IF THIS STEP IS NOT USED, AND YOU INTEND ON USING A PREVIOUSLY
//*  CREATED FILE, STEP SORT MUST BE CHANGED TO MAKE THIS FILE
//*  DISP=SHR.
//*
//*DELETE EXEC PGM=IEFBR14
//*DD1      DD  DSN=your.sorted.taska.extract,DISP=(MOD,DELETE),
//*             UNIT=DISK,SPACE=(TRK,0)
//*
//SORT     EXEC PGM=SORT,PARM='RC16=ABE'
//STEPLIB  DD  DISP=SHR,DSN=your.idms.loadlib
//SORTLIB  DD  DISP=SHR,DSN=your.sortlib
//SYSPRINT DD  SYSOUT=printout
//SYSOUT   DD  SYSOUT=printout
//SYSUDUMP DD  SYSOUT=errorout
//SORTWK01 DD  UNIT=wrkunit,SPACE=(CYL,(primary,secondary))
//SORTWK02 DD  UNIT=wrkunit,SPACE=(CYL,(primary,secondary))
//SORTWK03 DD  UNIT=wrkunit,SPACE=(CYL,(primary,secondary))
//SORTWK04 DD  UNIT=wrkunit,SPACE=(CYL,(primary,secondary))
//SORTWK05 DD  UNIT=wrkunit,SPACE=(CYL,(primary,secondary))
//SORTWK06 DD  UNIT=wrkunit,SPACE=(CYL,(primary,secondary))
//SORTIN   DD  DISP=SHR,DSN=your.taska.extract
//SORTOUT  DD  DSN=your.sorted.taska.extract,
//             DISP=(NEW,CATLG,DELETE),
//             UNIT=SYSDA,
//             SPACE=(CYL,(primout,secout),RLSE),
//             DCB=(RECFM=FB,LRECL=200,BLKSIZE=blkout)
//SYSIN    DD  *
 SORT FIELDS=(7,14,A),FORMAT=BI,EQUALS
/*
//*
//CULL0    EXEC PGM=CULP0,REGION=4048K
//STEPLIB  DD  DISP=SHR,DSN=your.idms.loadlib
//SYSCTL   DD  DISP=SHR,DSN=your.idms.sysctl
//SYSOUT   DD  SYSOUT=printout
//SYS004   DD  SYSOUT=printout,
//         DCB=(RECFM=FBA,LRECL=133,BLKSIZE=1330)
//SYSUDUMP DD  SYSOUT=errorout
//SYS005   DD  DISP=(NEW,PASS),
//         DSN=&&UPRMWORK,UNIT=wrkunit,
//         SPACE=(CYL,(10,5),RLSE),
//         DCB=(RECFM=F,LRECL=320,BLKSIZE=320)
```

```
//SYSIDMS  DD  *
 DMCL=local-dmcl
 DBNAME=dictname
/*
//* USFPMAIN and USFPWORK are always needed
//* Others needed based on requested reports
/*
//SYSIN    DD  *
 PARAM=NOLIST
=COPY 'USFPMAIN'
=COPY 'USFPWORK'
=COPY 'USFPBILL'
=COPY 'USFPABND'
=COPY 'USFPADSO'
=COPY 'USFPINDX'
=COPY 'USFPLOAD'
=COPY 'USFPPROG'
=COPY 'USFPRANK'
/*
//*
//CULL1    EXEC PGM=SORT,PARM='MSG,AP',REGION=500K
//STEPLIB  DD  DISP=SHR,DSN=your.idms.loadlib
//SORTLIB  DD  DISP=SHR,DSN=your.sortlib
//SORTWK01 DD  UNIT=wrkunit,SPACE=(CYL,(5),,CONTIG)
//SORTWK02 DD  UNIT=wrkunit,SPACE=(CYL,(5),,CONTIG)
//SORTWK03 DD  UNIT=wrkunit,SPACE=(CYL,(5),,CONTIG)
//SORTWK04 DD  UNIT=wrkunit,SPACE=(CYL,(5),,CONTIG)
//SORTOUT  DD  DSN=&&SPRMWORK,UNIT=wrkunit,
//         SPACE=(CYL,(5,5),,CONTIG),
//         DISP=(NEW,PASS),
//         DCB=(RECFM=F,LRECL=320,BLKSIZE=320)
//SYSOUT   DD  SYSOUT=printout
//SYSPRINT DD  SYSOUT=printout
//SYSUDUMP DD  SYSOUT=errorout
//SORTIN   DD  DISP=(OLD,DELETE),DSN=&&UPRMWORK
//SYSIN    DD  *
```

```
 SORT FIELDS=(1,69,A),FORMAT=BI
 RECORD TYPE=F,LENGTH=(320,,320)
 END
/*
//*
//CULL2    EXEC PGM=CULL,REGION=4048K
//STEPLIB  DD  DISP=SHR,DSN=your.idms.loadlib
//SYS011   DD  DISP=SHR,DSN=your.sorted.taska.extract
//SYSCTL   DD  DISP=SHR,DSN=your.idms.sysctl
//SYSUDUMP DD  SYSOUT=errorout
//SYSIDMS  DD  *
 IDMSDBUG=OFF
/*
//SYS004   DD  SYSOUT=printout,
//         DCB=(RECFM=FBA,LRECL=133,BLKSIZE=1330)
//SYS005   DD  DSN=&&SPRMWORK,DISP=(OLD,DELETE)
//SYS006   DD  DISP=(NEW,PASS),
//         DSN=&&UEXTWORK,UNIT=wrkunit,
//         SPACE=(CYL,(10,5),RLSE),
//         DCB=(RECFM=VB,LRECL=1000,BLKSIZE=1004)
//SYS007   DD  DISP=(NEW,PASS),
//         DSN=&&SRTPWORK,UNIT=wrkunit,
//         SPACE=(TRK,(1,1),RLSE),
//         DCB=(RECFM=F,LRECL=80,BLKSIZE=80)
//SYS008   DD  DISP=(NEW,PASS),
//         DSN=&&NSRTWORK,UNIT=wrkunit,
//         SPACE=(CYL,(10,5),RLSE),
//         DCB=(RECFM=VB,LRECL=1000,BLKSIZE=1004)
//*
//* PROCESS and REPORT request statements
//*
//SYS010   DD  *
PROCESS DCSYSRUS=N IDMSXXXX=N START=0101870000 STOP=1231002359
*PROCESS CVNUM=@ALL PLANID=@ALL
REPORT=BILL LEVL=DET RUTYPE=@ RUNAME=@ALL NAME=*
REPORT=ABND LEVL=DET RUTYPE=@ RUNAME=@ALL NAME=*
REPORT=ADSO LEVL=DET RUTYPE=@ RUNAME=@ALL NAME=*
REPORT=INDX LEVL=DET RUTYPE=@ RUNAME=@ALL NAME=*
REPORT=LOAD LEVL=DET RUTYPE=@ RUNAME=@ALL NAME=*
REPORT=PROG LEVL=DET RUTYPE=@ RUNAME=@ALL NAME=*
REPORT=RANK ORDER=D NUMBER=035 HOW=GT WHAT=TERMREAD  VALUE=000000001000
/*
//*
//CULL3    EXEC PGM=SORT,PARM='MSG,AP',REGION=500K
//STEPLIB  DD  DISP=SHR,DSN=your.idms.loadlib
//SORTLIB  DD  DISP=SHR,DSN=your.sortlib
//SORTWK01 DD  UNIT=wrkunit,SPACE=(CYL,(5),,CONTIG)
//SORTWK02 DD  UNIT=wrkunit,SPACE=(CYL,(5),,CONTIG)
//SORTWK03 DD  UNIT=wrkunit,SPACE=(CYL,(5),,CONTIG)
//SORTWK04 DD  UNIT=wrkunit,SPACE=(CYL,(5),,CONTIG)
//SORTOUT  DD  DSN=&&SEXTWORK,UNIT=wrkunit,
//         SPACE=(CYL,(5,5),,CONTIG),
//         DISP=(NEW,PASS),
```

```
//         DCB=(RECFM=VB,LRECL=1000,BLKSIZE=1004)
//SYSOUT   DD  SYSOUT=printout
//SYSPRINT DD  SYSOUT=printout
//SYSUDUMP DD  SYSOUT=errorout
//SORTIN   DD  DISP=(OLD,DELETE),DSN=&&UEXTWORK
//SYSIN    DD  DISP=(OLD,DELETE),DSN=&&SRTPWORK
//*
//CULL4    EXEC PGM=CULE,REGION=548K
//STEPLIB  DD  DISP=SHR,DSN=your.idms.loadlib
//SYSCTL   DD  DISP=SHR,DSN=your.idms.sysctl
//SYSIDMS  DD  *
 IDMSDBUG=OFF
/*
//SYS004   DD  SYSOUT=printout,
//         DCB=(RECFM=FBA,LRECL=133,BLKSIZE=1330)
//SYS006   DD  DISP=(OLD,DELETE),DSN=&&SEXTWORK
//SYS008   DD  DISP=(OLD,DELETE),DSN=&&NSRTWORK
//SYS030   DD  SYSOUT=printout,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYS031   DD  SYSOUT=printout,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYS032   DD  SYSOUT=printout,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYS033   DD  SYSOUT=printout,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYS034   DD  SYSOUT=printout,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYS035   DD  SYSOUT=printout,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYS036   DD  SYSOUT=printout,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYS037   DD  SYSOUT=printout,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYS038   DD  SYSOUT=printout,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYS039   DD  SYSOUT=printout,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYS040   DD  SYSOUT=printout,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYS041   DD  SYSOUT=printout,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYS042   DD  SYSOUT=printout,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYS043   DD  SYSOUT=printout,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYS044   DD  SYSOUT=printout,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYS045   DD  SYSOUT=printout,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYS046   DD  SYSOUT=printout,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYSABEND DD  SYSOUT=printout,OUTLIM=0
//SYSIN4   DD  DUMMY
//
```

Note: See Appendix A, “CA-Culprit Procedure” on page A-1 for the CA-IDMS/Task Analyzer CA-Culprit procedure used by USFREPT.

- **job card parameters** — The job card parameters required at your installation.
- **your.idms.loadlib** — The load library where CA-IDMS was installed.
- **your.idms.sysctl** — The SYSCTL when running in CV mode.
- **printout** — The SYSOUT print class.
- **errorout** — The ERROR print class.
- **wrkunit** — Work unit.
- **primary** — The primary SORT CYL(inder) allocation.
- **secondary** — The secondary SORT CYL(inder) allocation.
- **your.taska.extract** — The CA-IDMS/Task Analyzer Extract file.

- **your.sorted.taska.extract** — The sorted CA-IDMS/Task Analyzer Extract file.
- **primout** — The sorted CA-IDMS/Task Analyzer Extract primary CYL(inder) allocation.
- **secout** — The sorted CA-IDMS/Task Analyzer Extract secondary CYL(inder) allocation.
- **blkout** — Sorted CA-IDMS/Task Analyzer Extract block size.
- **local-dmcl** — The local DMCL name.
- **dictname** — The DBNAME of the dictionary containing the CA-IDMS/Task Analyzer CA-Culprit source.
- **your.sortlib** — The system SORT library.

4.4 VSE/ESA Operations

Depending upon the collection options you specify on the Statistics Plan screen, you may want to consider how frequently you archive the CA-IDMS Log, or whether you should use multiple logs to store large quantities of statistics.

To collect batch run-unit statistics, install the CA-IDMS SVC exit module GSISVCX supplied with CA-IDMS/Task Analyzer. See the *CA-IDMS Installation and Maintenance Guide* for detailed information.

CA-IDMS/Task Analyzer report programs are written in CA-Culprit. To customize CA-IDMS/Task Analyzer reports, copy the report program modules from your dictionary, and then modify the programs to create reports that meet your current needs. The following list contains the report program module names and the reports each program generates:

- USFPBILL — Billing Reports
- USFPPROG — Program Reports
- USFPADSO — CA-ADS Reports
- USFPABND — Abend Reports
- USFPLOAD — Program Loads Reports
- USFPINDX — Integrated Index Reports
- USFPRANK — Ranking Reports

The JCL required to direct CA-IDMS/Task Analyzer was cataloged during installation. The use of the JCL and the names of the TOOLJCL library members containing the JCL are described below:

1. To create an Extract File from the CA-IDMS Log, modify and run the CA-IDMS/Task Analyzer Extract JCL contained in TOOLJCL library member USFEXTRC.S (VSE/ESA) or USFEXTRC.S (VSE/ESA).
2. To create CA-IDMS/Task Analyzer reports from the Extract File, modify and run the CA-IDMS/Task Analyzer Report Execution JCL contained in TOOLJCL library member USFEXEC.S (VSE/ESA) or USFEXEC.S. (VSE/ESA).

Both sets of JCL are shown on the following pages.

4.4.1 VSE/ESA File Assignments

Even if you use a storage management tool such as CA-DYNAM, CA-IDMS/Task Analyzer requires an ASSGN statement for every file except SORTWK*nn*. This ASSGN is required because CA-IDMS/Task Analyzer has its own device-independent support which dynamically builds a DTF based on the device type indicated by the ASSGN. Unless the ASSIGN specifies VSAM or BDAM, the file may be defined with either DLBL or TLBL.

```
// (job card parameters)
*  FOR VSE/ESA USE THE FOLLOWING STATEMENTS
// DLBL   lib-filename,'your.idms.library'
// EXTENT ,volser
// LIBDEF SOURCE,SEARCH=lib-filename.sublib
// LIBDEF PHASE,SEARCH=lib-filename.sublib
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
*  FOR VSE/ESA USE THE FOLLOWING STATEMENTS
// DLBL   IJSYSCL,'idms.corelib'
// EXTENT ,volser
// DLBL   IJSYSSL,'idms.srclib'
// EXTENT ,volser
// LIBDEF SL,SEARCH=IJSYSSL
// LIBDEF CL,SEARCH=IJSYSCL
* ************************************************************
// UPSI 1
// OPTION LOG,PARTDUMP
* ************************************************************************
* If running in LOCAL mode, include dataset containing
* the DDLDML area of the dictionary containing Culprit modules
*               ******************
// DLBL     DICTDB,'your.dict.ddldml'
// EXTENT   SYSnnn,volser,,,rel-trk-blk,amount
// ASSGN    SYSnnn,DISK,VOL=volser,SHR
* ************************************************************************
* *************
*  FOR CV runs specify:
// DLBL  SYSCTL,'your.sysctl.file'
// EXTENT SYSnnn,volser,,,starttrack,#tracks
// ASSGN  SYSnnn,DISK,VOL=volser,SHR
* ************************************************************
```

```
// ASSGN  SYS004,SYSLST
// DLBL   SYS005,'CULPRIT.PARMS',0
// EXTENT SYS005,volser,,,rel-trk-blk,amount
// ASSGN  SYS005,DISK,VOL=volser,SHR
// DLBL   SYS006,'CULPRIT.EXTRACT',0
// EXTENT SYS006,volser,,,rel-trk-blk,amount
// ASSGN  SYS006,DISK,VOL=volser,SHR
// DLBL   SYS007,'CULPRIT.SORTCARD',0
// EXTENT SYS007,volser,,,rel-trk-blk,amount
// ASSGN  SYS007,DISK,VOL=volser,SHR
// DLBL   SYS008,'CULPRIT.NOSORT',0
// EXTENT SYS008,volser,,,rel-trk-blk,amount
// ASSGN  SYS008,DISK,VOL=volser,SHR
// DLBL   SORTWK1,'CULSORT.WORK',0
// EXTENT SYS001,volser,,,rel-trk-blk,amount
// ASSGN  SYS001,DISK,VOL=volser,SHR
// DLBL   SYS010,'your.archive.log'
// EXTENT SYS010,volser
// ASSGN  SYS010,DISK,VOL=volser,SHR
// DLBL   SYS020,'your.extract.file',0
// EXTENT SYS020,volser,,,rel-trk-blk,amount
// ASSGN  SYS020,DISK,VOL=volser,SHR
// DLBL   SYSIDMS,'#SYSIPT',0,SD
// EXEC  CULPRIT,SIZE=1024K
 PARAM=NOLIST
=COPY 'USFPEXTR'
/*
*     Fill in appropriate R12.0 SYSIDMS parameters
*
 ECHO=ON OR OFF
 LOCAL=OFF OR ON
 DMCL=your-dmcl-name
 DICTNAME=your-dictionary-name
/*
/&
```

Use the CA-IDMS/Task Analyzer EXTRACT JCL to:

1. Select data from the CA-IDMS Log.
2. Reformat the data for use by CA-IDMS/Task Analyzer report programs.
3. Copy the data to the Extract File.

- **job card parameters** — The job card parameters required at your company.
- **lib-filename** — The file name of the VSE/ESA library where your CA-IDMS executable phases and source reside.
- **your.idms.library** — The data set name of the library where your CA-IDMS executable phases and source reside.
- **volser** — The volume serial number or generic assignment of the disk volume on which the library or file, specified in the preceding DLBL statement, resides.
- **sublib** — The name of the sublibrary of the VSE/ESA library specified in the preceding DLBL statement.

- **idms.corelib** — The name of your CA-IDMS core image library.
- **idms.srclib** — The name of your CA-IDMS source statement library.
- **rel-trk-blk** — The starting position on the DASD for storage of the work file. VSE/ESA Users: do not start track assignment at 000000.
- **amount** — The number of tracks or blocks you need for storage of the work file.
- **your.archive.log** — The name of the CA-IDMS Log from which the records are to be extracted.
- **your.extract.file** — The name of the extract file to which the CA-IDMS/Task Analyzer records from the CA-IDMS Log are to be copied.

```
// JOB USFEXEC (job card parameters)
*     **** CREATE A SYSIDMS PARAMETER FILE (12.0) *****
// UPSI  1
// OPTION   LOG,PARTDUMP
// DLBL     anyname,'work.file.SYSIDMS',0,SD
// EXTENT   SYS060,volser,,,rel-trk-blk,amount
// ASSGN    SYS060,DISK,VOL=volser,SHR
// EXEC     DITTO
$$DITTO CSQ FILEOUT=anyname
* R12.0 SYSIDMS parameters.
* For Local Mode specify :
*
DMCL=dmcl-name,LOCAL=ON,JOURNAL=OFF,DBNAME=your.dbname
*
* For CV runs specify :
*
DMCL=dmcl-name,LOCAL=OFF,JOURNAL=OFF,DBNAME=your.dbname
/*
$$DITTO EOJ
/*
// UPSI 0
*  FOR VSE/ESA USE THE FOLLOWING STATEMENTS
// DLBL   lib-filename,'your.idms.library'
// EXTENT ,volser
// LIBDEF SOURCE,SEARCH=lib-filename.sublib
// LIBDEF PHASE,SEARCH=lib-filename.sublib
```

```
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
*  FOR VSE/ESA USE THE FOLLOWING STATEMENTS
// DLBL   IJSYSCL,'idms.corelib'
// EXTENT ,volser
// DLBL   IJSYSSL,'idms.srclib'
// EXTENT ,volser
// LIBDEF SL,SEARCH=IJSYSSL
// LIBDEF CL,SEARCH=IJSYSCL
* ************************************************************
*
// OPTION LOG,PARTDUMP
// ASSGN  SYS004,SYSLST
// ASSGN  SYS030,SYSLST
// ASSGN  SYS031,SYSLST
// ASSGN  SYS032,SYSLST
// ASSGN  SYS033,SYSLST
// ASSGN  SYS034,SYSLST
// ASSGN  SYS035,SYSLST
// ASSGN  SYS036,SYSLST
// ASSGN  SYS037,SYSLST
// ASSGN  SYS038,SYSLST
// ASSGN  SYS039,SYSLST
// ASSGN  SYS040,SYSLST
// ASSGN  SYS041,SYSLST
// ASSGN  SYS042,SYSLST
// ASSGN  SYS043,SYSLST
// ASSGN  SYS044,SYSLST
// ASSGN  SYS045,SYSLST
// ASSGN  SYS046,SYSLST
*  * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
/*   IDMS FILES
/*   If running in LOCAL mode include DLBL and EXTENT information for
/*   the IDMS dictionary which contains the CULPRIT report modules.
/*
// ASSGN  SYS009,DISK,VOL=volser,SHR
// DLBL   DICTDB,'your.dict.ddldml'
// EXTENT SYS009,volser,,,rel-trk-blk,amount
/*
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

```
/* If running in CV mode include the following:
// DLBL SYSCTL,'your.sysctl.file'
// EXTENT SYSnnn,volser,,,rel-trk-blk,amount
// ASSGN SYSnnn,DISK,VOL=volser,SHR
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
// DLBL   SYS005,'CULPRIT.PARMS',0
// EXTENT SYS005,volser,,,rel-trk-blk,amount
// ASSGN  SYS005,DISK,VOL=volser,SHR
// DLBL   SYS006,'CULPRIT.EXTRACT',0
// EXTENT SYS006,volser,,,rel-trk-blk,amount
// ASSGN  SYS006,DISK,VOL=volser,SHR
// DLBL   SYS007,'CULPRIT.SORTCARD',0
// EXTENT SYS007,volser,,,rel-trk-blk,amount
// ASSGN  SYS007,DISK,VOL=volser,SHR
// DLBL   SYS008,'CULPRIT.NOSORT',0
// EXTENT SYS008,volser,,,rel-trk-blk,amount
// ASSGN  SYS008,DISK,VOL=volser,SHR
// DLBL   SORTWK1,'CULSORT.WORK',0
// EXTENT SYS001,volser,,,rel-trk-blk,amount
// ASSGN  SYS001,DISK,VOL=volser,SHR
// ASSGN  SYS010,SYSRDR
// DLBL   SYS011,'your.extract.file'
// EXTENT SYS011,volser
// ASSGN  SYS011,DISK,VOL=volser,SHR
// DLBL    SYSIDMS,'work.file.SYSIDMS'
// EXTENT  SYS060,volser
// ASSGN   SYS060,DISK,VOL=volser,SHR
// EXEC CULPRIT
 PARAM=NOLIST
=COPY 'USFPMAIN'
=COPY 'USFPWORK'
=COPY 'USFPxxxx'
/*
PROCESS DCSYSRUS=N IDMSXXXX=N START=0101870000 STOP=1231002359
*PROCESS CVNUM=@ALL PLANID=@ALL
REPORT=xxxx LEVL=DET RUTYPE=@ RUNAME=@ALL
*
*    Consult manual for other parameters which apply to specific
*    reports.
*
/*
/&
```

Use the CA-IDMS/Task Analyzer REPORT EXECUTION JCL to:

1. Identify and run CA-IDMS/Task Analyzer reports. See the beginning of this chapter for a detailed explanation on the use of parameters.
2. Use the CA-IDMS/Task Analyzer report programs.

- **job card parameters** — The job card parameters required at your company.
- **anyname** — Any suitable name for your SYSIDMS file. Note the name chosen must be identical to the FILEOUT value in the DITTO copy step.
- **volser** — The volume serial number or generic assignment of the disk volume on which the library or file, specified in the preceding DLBL statement, resides.

- **rel-trk-blk** — The starting position on the DASD for storage of the work file. VSE/ESA Users: do not start track assignment at 000000.
- **amount** — The number of tracks or blocks you need for storage of the work file.
- **lib-filename** — The file name of the VSE/ESA library where your CA-IDMS executable phases and source reside.
- **your.idms.library** — The data set name of the library where your CA-IDMS executable phases and source reside.
- **sublib** — The name of the sublibrary of the VSE/ESA library specified in the preceding DLBL statement.
- **idms.corelib** — The name of your CA-IDMS core image library.
- **idms.srclib** — The name of your CA-IDMS source statement library.
- **your.dict.ddldml** — The file ID of the dictionary into which the CULPRIT report statements have been loaded.
- **your.sysctl.file** — The file ID of your SYSCTL file.
- **your.extract.file** — The name of the extract file to which the CA-IDMS/Task Analyzer records from the CA-IDMS Log are to be copied.
- **work.file.SYSIDMS** — The file ID of your SYSIDMS work file.
- **xxxx** — The suffix of the report program name: BILL, PROG, ADSO, ABND, LOAD, INDX, or RANK.

Note: The Report Execution JCL, contained in USFEXEC, contains PROCESS and REPORT statement examples. See Chapter 3, “Parameters” on page 3-1 for a detailed explanation on the use of parameters.

4.5 VM/ESA Operations

Before operating CA-IDMS/Task Analyzer in a VM/ESA environment, review the considerations described below.

Depending upon the collection options you specify on the Statistics Plan Screen, you may want to consider how frequently you archive the CA-IDMS Log, or whether you should use multiple logs to store large quantities of statistics.

To collect batch run-unit statistics, install the CA-IDMS SVC exit module GSISVCX supplied with CA-IDMS/Task Analyzer.

CA-IDMS/Task Analyzer report programs are written in CA-Culprit. To customize CA-IDMS/Task Analyzer reports, copy the report program modules from your dictionary, and then modify the programs to create reports that meet your current needs. The following list contains the report program module names and the reports each program generates:

- USFPBILL — Billing Reports
- USFPPROG — Program Reports
- USFPADSO — CA-ADS Reports
- USFPABND — Abend Reports
- USFPLOAD — Program Loads Reports
- USFPINDX — Integrated Index Reports
- USFPRANK — Ranking Reports

USFXTRCT and USFRPRT, the EXECs required to direct CA-IDMS/Task Analyzer, were cataloged during installation and are shown on the following pages.

4.5.1 The Extract EXEC: USFXTRCT

USFXTRCT, the Extract EXEC, is shown on the next two pages. To create an Extract File from the CA-IDMS Log:

1. Create a SYSIN file with the following CA-Culprit parameters:

   ```
   DATABASE DICTNAME=your.dict.name
   PARAM=NOLIST
   =COPY 'USFPEXTR'
   ```

   where:

   your.dict.name is the name of the dictionary in which the Extract programs reside.

   If you do not use a secondary dictionary, do not create a DATABASE parameter.

2. Modify and run the CA-IDMS/Task Analyzer Extract EXEC contained in source library member USFXTRCT.

```
/*  */
TRACE OFF; SIGNAL ON ERROR
/*                                                                  */
IDMS_LOADLIB_FN    = 'idms.loadlib'
SORT_TXTLIB_FN     = 'your.sortlib'
/*                                                                  */
/* Link and access the Minidisks containing the required librarie(s) */
/*                                                                  */
 'CP SPOOL PRINTER NOCONT CLOSE'
 'CP SPOOL PRINTER TO * NOHOLD CONT FORM OFF DIST OFF'
 'GLOBAL  LOADLIB ' IDMS_LOADLIB_FN
 'GLOBAL  TXTLIB ' SORT_TXTLIB_FN
/*                                                                  */
 'FILEDEF SYSLST   DISK FILE SYSLST   fm'
 'FILEDEF SYSPRINT DISK FILE SYSPRINT fm'
 'FILEDEF SYSUDUMP DISK FILE SYSUDUMP fm'
 'FILEDEF SORTPRNT DISK FILE SORTPRNT fm'
 'FILEDEF SORTMSGS DISK FILE SORTMSGS fm'
 'FILEDEF SYSOUT   DISK FILE SYSOUT   fm'
/*                                                                  */
/* Restart Dataset                                                  */
/*                                                                  */
 'FILEDEF SYSIN4 DUMMY'
/*                                                                  */
/* Input Program Listing                                            */
/*                                                                  */
 'FILEDEF SYS004 DISK FILE SYS004 fm4 (RECFM FBA LRECL 133 BLKSIZE 133'
/*                                                                  */
/* Work File                                                        */
/*                                                                  */
 'FILEDEF SYS005 DISK FILE SYS005 fm4 (RECFM F LRECL 320 BLKSIZE 320'
/*                                                                  */
/* Output of Extracted items                                        */
/*                                                                  */
 'FI SYS006 DISK FILE SYS006 fm4 (RECFM VB LRECL 1000 BLKSIZE 1004'
/*                                                                  */
/* Sort Control Parameters                                          */
/*                                                                  */
 'FILEDEF SYS007 DISK FILE SYS007 fm4 (RECFM F  LRECL 80   BLKSIZE 80'
/*                                                                  */
/* Extracted items no Sort                                          */
/*                                                                  */
 'FI SYS008 DISK FILE SYS008 fm4 (RECFM VB LRECL 1000 BLKSIZE 1004'
/*                                                                  */
/* Input Archive Log Tape                                           */
/*                                                                  */
 'FILEDEF SYS010 TAP1 (dcb'
/*                                                                  */
/* Output Extract File                                              */
/*                                                                  */
```

```
 'FI SYS020 DISK TASKA EXTRACT fm (RECFM FB LRECL 200 BLKSIZE 2000'
/*                                                                  */
/* Punch Output                                                     */
/*                                                                  */
FILEDEF SYSPCH DUMMY
/*                                                                  */
/* IDMS10 Sort Parameters                                           */
/*                                                                  */
 'FILEDEF CULSRT1I DISK FILE CULSRT1I fm'
/*                                                                  */
/* SYSIN CULPRIT Parameters                                         */
/*                                                                  */
 'FILEDEF SYSIN DISK USFXTRCT SYSIN fm'
/*                                                                  */
/* You must create a file 'SYSIDMS INPUT A' containing the SYSIDMS  */
/* parameters you use to specify your runtime environment.          */
/*                                                                  */
'FILEDEF  SYSIDMS  DISK SYSIDMS INPUT fm'
/*                                                                  */
 SIGNAL OFF ERROR
 SAY 'STARTING CA-IDMS/Task Analyzer CULPRIT EXTRACT PROCESSING'
 'EXECOS OSRUN CULPRIT'
 USFXTRC_RC = RC
 'CP SPOOL PRINTER NOCONT'
 'CP CLOSE PRINTER NAME USFXTRCT LISTING'
 'CP SPOOL PRINTER OFF'
 SAY 'USFXTRCT FINISHED WITH A RETURN CODE OF' USFXTRC_RC
 'GLOBAL LOADLIB'
 'GLOBAL TXTLIB'
 'FILEDEF * CLEAR'
 EXIT USFXTRC_RC
/*                                                                  */
/*++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++*/
ERROR:
/*++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++*/
 ERROR_RC = RC
 TRACE OFF; SIGNAL OFF ERROR
 SAY 'NON-ZERO RETURN CODE ENCOUNTERED IN EXEC AT LINE' SIGL
 'CP SPOOL PRINTER NOCONT'
 'CP CLOSE PRINTER NAME USFRPRT LISTING'
 'CP SPOOL PRINTER OFF'
 'GLOBAL LOADLIB'
 'GLOBAL TXTLIB'
 'FILEDEF * CLEAR'
 EXIT ERROR_RC
/*                                                                  */
```

Use the CA-IDMS/Task Analyzer EXTRACT EXEC to:

1. Select data from the CA-IDMS Log.
2. Reformat the data for use by CA-IDMS/Task Analyzer report programs.
3. Copy the data to the Extract File.

- **idms.loadlib** — The file name of the load library containing your CA-IDMS modules.

- **your.sortlib** — The file name of the library containing your sort module.
- **dcb** — DCB information for the archive log tape: record format, logical record length, and block size.
- **fm4** — The file mode of the relevant file. File mode 4 indicates OS/390 file simulation.

4.5.2 The Report Execution EXEC: USFRPRT

USFRPRT, the Report Execution EXEC, is shown on the next two pages. To create CA-IDMS/Task Analyzer reports from the Extract File:

1. Create a SYSIN file with the following CA-Culprit parameters:

   ```
   DATABASE DICTNAME=your.dict.name
   PARM=NOLIST
   =COPY 'USFPMAIN'
   =COPY 'USFPWORK'
   =COPY 'USFPxxxx'
   ```

   where:

   your.dict.name is the name of the dictionary into which the CA-IDMS/Task Analyzer Report programs were loaded.

   If you do not use a secondary dictionary, do not create the DATABASE parameter.

   xxxx is the suffix of the report program name: BILL, PROG, ADSO, ABND, LOAD, INDX, or RANK.

2. Create a SYS010 file for the CA-IDMS/Task Analyzer parameters. Use as parameters the PROCESS and REPORT statements, supplying values in the correct positions. See Chapter 3, “Parameters” on page 3-1 for a detailed explanation on the use of parameters.
3. Modify and run the CA-IDMS/Task Analyzer Report Execution EXEC contained in source library member USFRPRT.

```
/*  */
TRACE OFF; SIGNAL ON ERROR
/*                                                                  */
/* USFRPRT                                                          */
/*                                                                  */
IDMS_LOADLIB_FN    = 'idms.loadlib'
SORT_TXTLIB_FN     = 'your.sortlib'
/*                                                                  */
/* Link and access the Minidisks containing the required librarie(s) */
/*                                                                  */
 'CP SPOOL PRINTER NOCONT CLOSE'
 'CP SPOOL PRINTER TO * NOHOLD CONT FORM OFF DIST OFF'
 'GLOBAL  LOADLIB ' IDMS_LOADLIB_FN
 'GLOBAL  TXTLIB ' SORT_TXTLIB_FN
/*                                                                  */
 'FILEDEF SYSLST   DISK FILE SYSLST   fm'
 'FILEDEF SYSIN4   DISK FILE SYSIN4   fm'
 'FILEDEF SYSPRINT DISK FILE SYSPRINT fm'
 'FILEDEF SYSUDUMP DISK FILE SYSUDUMP fm'
 'FILEDEF SORTPRNT DISK FILE SORTPRNT fm'
 'FILEDEF SORTMSGS DISK FILE SORTMSGS fm'
 'FILEDEF SYSOUT   DISK FILE SYSOUT   fm'
/*                                                                  */
/* Input Program Listing                                            */
/*                                                                  */
 'FI SYS004 DISK FILE SYS004 fm4 (RECFM FA LRECL 133 BLKSIZE 133'
/*                                                                  */
/* Work File                                                        */
/*                                                                  */
 'FI SYS005 DISK FILE SYS005 fm4 (RECFM F LRECL 320 BLKSIZE 320'
/*                                                                  */
/* IDMS10 Sort Parameters                                           */
/*                                                                  */
 'FILEDEF CULSRT1I DISK FILE CULSRT1I fm'
/*                                                                  */
/* Extract Work File                                                */
/*                                                                  */
 'FI SYS006 DISK FILE SYS006 fm4 (RECFM VB LRECL 1000 BLKSIZE 1004'
/*                                                                  */
/* Work File                                                        */
/*                                                                  */
 'FI SYS007 DISK FILE SYS007 fm4 (RECFM F  LRECL 80   BLKSIZE 80'
/*                                                                  */
/* Work File                                                        */
/*                                                                  */
 'FI SYS008 DISK FILE SYS008 fm4 (RECFM VB LRECL 1004 BLKSIZE 1004'
/*                                                                  */
/* CA-IDMS/Task Analyzer Parameter File                             */
/*                                                                  */
 'FILEDEF SYS010 DISK TASKA SYS010 fm'
/*                                                                  */
 'FILEDEF SYSPCH DUMMY'
/*                                                                  */
```

```
/* CA-IDMS/Task Analyzer Extract File (Created in Extract EXEC)      */
/*                                                                   */
 'FILEDEF SYS011 DISK FILE TASKA fm (RECFM FB LRECL 200 BLKSIZE 2000'
/*                                                                   */
/* CULPRIT SYSIN File                                                */
/*                                                                   */
 'FILEDEF SYSIN DISK TASKA SYSIN fm'
/*                                                                   */
/* Report Files                                                      */
/*                                                                   */
 'FILEDEF SYS030 DISK FILE SYS030 fm (RECFM FA LRECL 133 BLKSIZE 133'
 'FILEDEF SYS031 DISK FILE SYS031 fm (RECFM FA LRECL 133 BLKSIZE 133'
 'FILEDEF SYS032 DISK FILE SYS032 fm (RECFM FA LRECL 133 BLKSIZE 133'
 'FILEDEF SYS033 DISK FILE SYS033 fm (RECFM FA LRECL 133 BLKSIZE 133'
 'FILEDEF SYS034 DISK FILE SYS034 fm (RECFM FA LRECL 133 BLKSIZE 133'
 'FILEDEF SYS035 DISK FILE SYS035 fm (RECFM FA LRECL 133 BLKSIZE 133'
 'FILEDEF SYS036 DISK FILE SYS036 fm (RECFM FA LRECL 133 BLKSIZE 133'
 'FILEDEF SYS037 DISK FILE SYS037 fm (RECFM FA LRECL 133 BLKSIZE 133'
 'FILEDEF SYS038 DISK FILE SYS038 fm (RECFM FA LRECL 133 BLKSIZE 133'
 'FILEDEF SYS039 DISK FILE SYS039 fm (RECFM FA LRECL 133 BLKSIZE 133'
 'FILEDEF SYS040 DISK FILE SYS040 fm (RECFM FA LRECL 133 BLKSIZE 133'
 'FILEDEF SYS041 DISK FILE SYS041 fm (RECFM FA LRECL 133 BLKSIZE 133'
 'FILEDEF SYS042 DISK FILE SYS042 fm (RECFM FA LRECL 133 BLKSIZE 133'
 'FILEDEF SYS043 DISK FILE SYS043 fm (RECFM FA LRECL 133 BLKSIZE 133'
 'FILEDEF SYS044 DISK FILE SYS044 fm (RECFM FA LRECL 133 BLKSIZE 133'
 'FILEDEF SYS045 DISK FILE SYS045 fm (RECFM FA LRECL 133 BLKSIZE 133'
 'FILEDEF SYS046 DISK FILE SYS046 fm (RECFM FA LRECL 133 BLKSIZE 133'
/*                                                                   */
/* You must create a file 'SYSIDMS INPUT A' containing the SYSIDMS   */
/* parameters you use to specify your runtime environment.           */
/*                                                                   */
'FILEDEF  SYSIDMS  DISK SYSIDMS INPUT A'
/*                                                                   */
 SIGNAL OFF ERROR
 SAY 'STARTING CA-IDMS/Task Analyzer CULPRIT REPORT PROCESSING'
 'EXECOS OSRUN CULPRIT'
 USFRPRT_RC = RC
 'CP SPOOL PRINTER NOCONT'
 'CP CLOSE PRINTER NAME USFRPRT LISTING'
 'CP SPOOL PRINTER OFF'
 SAY 'USFRPRT FINISHED WITH A RETURN CODE OF' USFRPRT_RC
 'GLOBAL LOADLIB'
 'GLOBAL TXTLIB'
 'FILEDEF * CLEAR'
 EXIT USFRPRT_RC
/*                                                                   */
/*+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++ */
ERROR:
/*+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++ */
 ERROR_RC = RC
 TRACE OFF; SIGNAL OFF ERROR
 SAY 'NON-ZERO RETURN CODE ENCOUNTERED IN EXEC AT LINE' SIGL
```

```
  'CP SPOOL PRINTER NOCONT'
  'CP CLOSE PRINTER NAME USFRPRT LISTING'
  'CP SPOOL PRINTER OFF'
  'GLOBAL LOADLIB'
  'GLOBAL TXTLIB'
  'FILEDEF * CLEAR'
  EXIT ERROR_RC
 /*                                                              */
```

Use the CA-IDMS/Task Analyzer REPORT EXECUTION EXEC to:

1. Identify and run CA-IDMS/Task Analyzer reports.
2. Use the CA-IDMS/Task Analyzer report programs.

- **idms.loadlib** — The name of your CA-IDMS load library.
- **your.sortlib** — The name of your sort text library.
- **fn ft fm** — The file name, file type, and file mode of the relevant file.
- **fn ft fm4** — The file name, file type, and file mode of the relevant file. File mode 4 indicates OS/390 file simulation.

Note: See Chapter 3, “Parameters” on page 3-1 for a detailed explanation of the use of parameters.

Chapter 5. Messages

This chapter documents the messages generated by CA-IDMS/Task Analyzer. CA-IDMS/Task Analyzer displays error messages, informative messages, and fatal messages, depending on the situation. These messages appear on the CA-IDMS Log, Input Parameter Report, or are displayed on the operator's console or statistics plan screen. This chapter lists the code for each message along with an explanation for each one.

All messages are preceded by a unique eight-character code. The message code is in the format *xxxnnnns*, where *xxx* is the ID of the module issuing the message, *nnnn* is a message number for the message within the module, and *s* is the severity code for the message. The severity code is either I, E, or F. Severity codes are explained below.

Information — A message code ending with the letter **I** indicates an informative message. Informative messages need no remedial action.

Error — A message code ending with the letter **E** indicates an error. Error messages report erroneous and conflicting parameter data that has caused processing to terminate or to create an irrecoverable processing condition.

Fatal — A message code ending with the letter **F** indicates an error from which processing cannot recover.

UF999999 TASKA ABNORMAL TERMINATION exit-number major-code minor-code

Reason: The CA-IDMS/Task Analyzer exit, as specified by exit-number, is unable to continue processing due to one of the following errors as indicated by major-code:

- **CSTG** - unable to acquire the CA-IDMS/Task Analyzer user storage block USFCCOM. The value as specifed by minor-code rerpesents the status returned from the #GETSTG function.
- **DSTG** - unable to acquire dynamic storage. The value as specified by minor-code represents the status returned from the failing #GETSTG function.
- **GETQ** - unable to read the CA-IDMS/Task Analyzer queue record. The value as specified by minor-code represents the status returned from the failing #GETQUE function.
- **OSTG** - unable to acquire the CA-IDMS/Task Analyzer system shared storage block USFSCOM because it already exists.
- **PUTQ** - unable to write the CA-IDMS/Task Analyzer queue record. The value as specified by minor-code represents the status returned from the failing #PUTQUE function.
- **SSTG** - unable to acquire the CA-IDMS/Task Analyzer system shared storage block USFSCOM. The value as specified by minor-code represents the status returned from the failing #GETSTG function.
- **WRIT** - unable to write a statistics record to SMF. The value as specified by minor-code represents the status returned from the SMF SVC.

Action: These errors result from the incorrect installation of CA-IDMS/Task Analyzer, including preparation of the CV or SMF environment. Call Computer Associates Product Support if you are unable to correct the situation.

USF0001I INPUT PARAMETER STATEMENT:

Reason: CA-IDMS/Task Analyzer read a parameter statement. The entire image is displayed.

Action: None.

USF0002E PARAMETER STATEMENT INVALID:

Reason: CA-IDMS/Task Analyzer encountered an incorrectly entered parameter statement.

Action: Review the PROCESS and REPORT statements in the member USFECULP, correct the error, and resubmit the job.

USF0003E DCSYSRUS ENTRY MUST BE YES OR NO:

Reason: CA-IDMS/Task Analyzer encountered an entry other than YES or NO after the DCSYSRUS parameter.

Action: Enter YES or NO after the DCSYSRUS parameter and resubmit the job.

USF0004E IDMSXXXX ENTRY MUST BE YES OR NO:

Reason: CA-IDMS/Task Analyzer encountered an entry other than YES or NO after the IDMSXXXX parameter.

Action: Enter YES or NO after the IDMSXXXX parameter and resubmit the job.

USF0005I MULTIPLE PROCESS STATEMENTS - IGNORED:

Reason: CA-IDMS/Task Analyzer read more than one PROCESS statement. The entire image of the PROCESS statement that is ignored is displayed. Only the first PROCESS statement entered for the job is processed.

Action: None.

USF0006I REPORTS WILL BE PROCESSED:

Reason: CA-IDMS/Task Analyzer processed all input successfully. Reporting will occur.

Action: None.

USF0007F E-LEVEL ERRORS - NO REPORTS PROCESSED:

Reason: CA-Culprit generated E-level errors.

Action: Contact Computer Associates Product Support.

USF0008I PARAMETER LIMIT 30 - REMAINDER IGNORED:

Reason: CA-IDMS/Task Analyzer encountered more than 30 REPORT statements for a particular report group; the first 30 will be processed, and the remaining will be ignored.

Action: None.

USF0009E START DATE/TIME MUST BE NUMERIC:

Reason: CA-IDMS/Task Analyzer encountered a non-numeric value entered after the Start Date/Time parameter.

Action: Enter a numeric value after the Start Date/Time parameter and resubmit the job.

USF0010E STOP DATE/TIME MUST BE NUMERIC:

Reason: CA-IDMS/Task Analyzer encountered a non-numeric value entered after the Stop Date/Time parameter.

Action: Enter a numeric value after the Stop Date/Time parameter and resubmit the job.

USF0011E REPORT TYPE INVALID:

Reason: CA-IDMS/Task Analyzer encountered an invalid report type entered in the columns for the Report type on the REPORT statement.

Action: Enter a correct report type in the designated columns, and resubmit the job.

USF0012E REPORT LEVEL INVALID:

Reason: In the columns for the Report level on the REPORT statement, CA-IDMS/Task Analyzer encountered a report level invalid for the specified report type.

Action: Enter a correct report level for the specified report type in the designated columns, and resubmit the job.

USF0013E REPORT VALUE INVALID:

Reason: CA-IDMS/Task Analyzer encountered an invalid report value entered on the REPORT statement.

Action: Review the REPORT statement parameters and values, enter a correct report value in the designated columns, and resubmit the job.

USF0014E START DATE INVALID:

Reason: CA-IDMS/Task Analyzer encountered an error on the Start Date on the PROCESS statement.

Action: Enter a correct Start Date and resubmit the job.

USF0015E STOP DATE INVALID:

Reason: CA-IDMS/Task Analyzer encountered an error in a Stop Date on the PROCESS statement.

Action: Enter a correct Stop Date and resubmit the job.

USF0016E RUTYPE INVALID:

Reason: CA-IDMS/Task Analyzer encountered an invalid run-unit type entered in the columns for the RUTYPE on the REPORT statement.

Action: Enter a correct run-unit type in the designated columns and resubmit the job.

USF0017E START/STOP DATE INVALID:

Reason: CA-IDMS/Task Analyzer encountered an error in a Start/Stop Date on the PROCESS statement.

Action: Enter a correct Start/Stop Date and resubmit the job.

USF0018E START/STOP TIME INVALID:

Reason: CA-IDMS/Task Analyzer encountered an error in a Start/Stop Time on the PROCESS statement.

Action: Enter a correct Start/Stop Time and resubmit the job.

USF0019E RANK WHAT INVALID:

Reason: CA-IDMS/Task Analyzer encountered an invalid attribute entered in the columns for the WHAT parameter on the REPORT statement for a Ranking report.

Action: Enter a correct attribute in the designated columns and resubmit the job.

USF0020E RANK HOW INVALID:

Reason: CA-IDMS/Task Analyzer encountered an invalid ranking value entered in the columns for the HOW parameter in the REPORT statement for a Ranking report.

Action: Enter a correct ranking value in the designated columns and resubmit the job.

USF0021E RANK NUMBER INVALID:

Reason: CA-IDMS/Task Analyzer encountered an invalid numeric value entered in the columns for the NUMBER parameter in the REPORT statement for a Ranking report.

Action: Enter a correct numeric value in the designated columns and resubmit the job.

USF0022E RANK VALUE INVALID:

Reason: CA-IDMS/Task Analyzer encountered an invalid value entered in the columns for the VALUE parameter in the REPORT statement for a Ranking report.

Action: Enter a correct value in the designated columns and resubmit the job.

USF0023E RANK ORDER INVALID:

Reason: CA-IDMS/Task Analyzer encountered an invalid ranking order entered in the columns for the ORDER parameter in the REPORT statement for a Ranking report.

Action: Enter a correct ranking order in the designated columns and resubmit the job.

USF0024E CV NUMBER INVALID:

Reason: CA-IDMS/Task Analyzer encountered an invalid CV number entered in the columns for the CVNUM parameter in a REPORT statement.

Action: Enter a correct CV number in the designated columns and resubmit the job.

USF7001I GLOBAL EXIT ACTIVATED:

Reason: The CA-IDMS/Task Analyzer global exits have been activated.

Action: None.

USF7002I GLOBAL EXIT DEACTIVATED:

Reason: The CA-IDMS/Task Analyzer global exits have been deactivated.

Action: None.

USF7003I COLLECTION FACILITY ACTIVATED, PLAN ID=plan-id, date/time:

Reason: The CA-IDMS/Task Analyzer collection facility has been activated. Plan ID, date, and time are shown.

Action: None.

USF7004I COLLECTION FACILITY DEACTIVATED:

Reason: The CA-IDMS/Task Analyzer collection facility has been deactivated.

Action: None.

USF7200E PFKEY INVALID == PF1 - HELP PF3 - HELP ENTER - UPDATE:

Reason: A key or PF key other than those shown in this message was pressed while viewing the Statistics Plan screen.

Action: Enter a valid key or PF key.

USF7201E DATA ENTERED CONTAINS MULTIPLE ERRORS - UPDATE UNSUCCESSFUL:

Reason: More than one of the options entered on the Statistics Plan screen was in error.

Action: Correct the fields that have been highlighted on the Statistics Plan screen.

USF7202I UPDATE SUCCESSFUL:

Reason: All values entered on the Statistics Plan screen are valid, and these options have been updated successfully.

Action: None.

USF7203I NO FIELDS IN ERROR - HELP CANCELLED:

Reason: Help was requested when no fields were in error and was therefore cancelled.

Action: None.

USF7204E INTERNAL CONTROL BLOCK ERROR - SNAP TAKEN:

Reason: A non-zero error was returned concerning a CA-IDMS/Task Analyzer internal control block. The long term storage acquired by USFEXT0 was not found by USFAOPT.

Action: Call Computer Associates Product Support.

USF7205E IDMS/DC QUEUE MANAGEMENT (GET) ERROR - SNAP TAKEN:

Reason: A non-zero error was returned concerning CA-IDMS/DC Queue Management (GET).

Action: Call Computer Asociates Product Support.

USF7206E IDMS/DC QUEUE MANAGEMENT (PUT) ERROR - SNAP TAKEN:

Reason: A non-zero error was returned concerning CA-IDMS/DC Queue Management (PUT).

Action: Call Computer Associates Product Support.

USF7207E IDMS/DC QUEUE MANAGEMENT (DELETE) ERROR - SNAP TAKEN:

Reason: A non-zero error was returned concerning CA-IDMS/DC Queue Management (DELETE).

Action: Call Computer Associates Product Support.

USF7208E USER EXIT TABLE NOT FOUND - SNAP TAKEN:

Reason: A non-zero error was returned concerning the CA-IDMS/Task Analyzer User Exit Table.

Action: Call Computer Associates Product Support.

USF7210E DATABASE STATISTICS COLLECTION - VALID OPTIONS ARE (Y)ES OR (N)O:

Reason: A value other than Y or N was entered in the DATABASE field of the Statistics Plan screen.

Action: Enter either Y or N.

USF7211E ADS STATISTICS COLLECTION - VALID OPTIONS ARE (Y)ES OR (N)O:

Reason: A value other than Y or N was entered in the ADS field of the Statistics Plan screen.

Action: Enter either Y or N.

USF7212E IDMS/DC PROGRAM STATISTICS COLLECTION - VALID OPTIONS ARE (Y)ES OR (N)O:

Reason: A value other than Y or N was entered in the PROGRAM field of the Statistics Plan screen.

Action: Enter either Y or N.

USF7213E INTERNAL IDMS/DC TASK STATISTICS COLLECTION - VALID OPTIONS ARE (Y)ES OR (N)O:

Reason: A value other than Y or N was entered in the DC/INTERNAL field of the Statistics Plan screen.

Action: Enter either Y or N.

USF7214E LINK/LOAD STATISTICS COLLECTION - VALID OPTIONS ARE (Y)ES OR (N)O:

Reason: A value other than Y or N was entered in the LOAD/LINK field of the Statistics Plan screen.

Action: Enter either Y or N.

USF7215E EXCLUSION OPTION - VALID OPTIONS ARE (T)ASK, (P)ROGRAM, OR (D)ELETE:

Reason: A value other than T, P, or D was entered in one of the exclusion option fields of the Statistics Plan screen.

Action: Enter either T, P, or D and the appropriate name.

USF7216E GLOBAL STATUS - VALID OPTIONS ARE (E)NABLE OR (D)ISABLE:

Reason: A value other than E or D was entered in the GLOBAL EXIT STATUS field of the Statistics Plan screen.

Action: Enter either E or D.

USF7217E ENABLE HOURS MUST BE BETWEEN 00 AND 24:

Reason: Hour values were entered that were outside the range of 00 and 24.

Action: Enter hour values that are between 00 and 24.

USF7218E ENABLE MINUTES MUST BE BETWEEN 00 AND 59:

Reason: Minute values were entered that were outside the range of 00 and 59.

Action: Enter minute values that are between 00 and 59.

USF7219E DISABLE HOURS MUST BE BETWEEN 00 AND 24:

Reason: Hour values were entered that were outside the range of 00 and 24.

Action: Enter hour values that are between 00 and 24.

USF7220E DISABLE MINUTES MUST BE BETWEEN 00 AND 59:

Reason: Minute values were entered that were outside the range of 00 and 59.

Action: Enter minute values that are between 00 and 59.

USF7221E (FROM) TIME MUST BE LESS THAN (TO) TIME:

Reason: An hour:minute value entered in the FROM field was greater than the hour:minute value entered in the TO field.

Action: Enter an hour:minute value in the FROM field that is less than the hour:minute value entered in the TO field.

USF7222E COLLECTION STATUS - VALID OPTIONS ARE (E)NABLE OR (D)ISABLE:

Reason: A value other than E or D was entered in an (O)ption field for a Computer Associates exit.

Action: Enter an E or D.

USF7223E USER EXIT STATUS - VALID OPTIONS ARE (E)NABLE OR (D)ISABLE:

Reason: A value other than E or D was entered in an (O)ption field for a user exit.

Action: Enter an E or D.

USF7224E USE IDMS/DC LOG - VALID OPTIONS ARE (Y)ES OR (N)O:

Reason: A value other than Y or N was entered in the LOG FILE field.

Action: Enter a Y or N.

USF7225E IDMS/DC LOG TYPE - VALID OPTIONS ARE 1, 2, or 4:

Reason: A value other than 1, 2, or 4 was entered in the LOG TYPE field.

Action: Enter a 1 (messages), 2 (trace), or 4 (snap/dump).

USF7226E WRITE IDMS PROVIDED STATISTICS - OPTIONS ARE (Y)ES OR (N)O:

Reason: A value other than Y or N was entered in the DC STATISTICS field.

Action: Enter a Y or N.

USF7227E USE OS SMF FACILITY - VALID OPTIONS ARE (Y)ES OR (N)O:

Reason: A value other than Y or N was entered in the OS/390 field.

Action: Enter a Y or N.

USF7228E SMF BLOCK MODE TECHNIQUE - VALID OPTIONS ARE (1) OR(2):

Reason: A value other than 1 or 2 was entered in the BLOCK MODE field.

Action: Enter a 1 (maximum blocking efficiency) or 2 (blocking by transaction).

USF7229E SMF BLOCK MODE TYPE 2 REQUIRES A BLOCKSIZE = (MAX LINKS) * 150:

Reason: A value less than 150 times the maximum number of links was entered in the BLOCK SIZE field.

Action: Enter an appropriate block size.

USF7230E SMF AUTHORIZATION MODE - VALID OPTIONS ARE (1) OR (2):

Reason: A value other than 1 or 2 was entered in the AUTHORIZATION MODE field.

Action: Enter a 1 (CV authorized) or 2 (CA-IDMS/Task Analyzer SVC installed).

USF7231E EXTERNAL RUNUNIT STATISTICS COLLECTION - VALID OPTIONS ARE (Y)ES OR (N)O:

Reason: A value other than Y or N was entered in the ERUS field.

Action: Enter a Y or N.

USF7232E SPECIFY START DAY - VALID OPTIONS are SUN to SAT:

Reason: A value other than one of SUN MON TUE WED THU FRI SAT was entered for START DAY.

Action: Enter one of the above values.

USF7233E SPECIFY END DAY - VALID OPTIONS are SUN to SAT:

Reason: A value other than one of SUN MON TUE WED THU FRI SAT was entered for END DAY.

Action: Enter one of the above values.

Appendix A. CA-Culprit Procedure

The JCL for the CA-Culprit procedure used in CA-IDMS/Task Analyzer is shown here. The CA-Culprit procedure, found in source library member USFPCULP, is used to generate reports.

A.1 CA-Culprit Procedure JCL

When the CA-IDMS/Task Analyzer Report Execution JCL is run, it executes the CA-Culprit procedure contained in the source member USFPCULP. The JCL for the CA-Culprit procedure is shown in this appendix.

```
//USFPCULP PROC PRINT=A,                          **  OUTPUT PRINT CLASS
//                      ERML=D,                   **  ERROR PRINT CLASS
//                      UNIT=3380,                **  UNIT FOR WORK FILES
//                      SYSCTL='YOUR.IDMS.SYSCTL',
//                      IDMSLD2='YOUR.IDMS.LOADLIB',
//                      IDMSRC='YOUR.IDMS.SRCLIB',
//                      SORTLIB='YOUR.SYS1.SRTLIB'
//*****************************************************************************
//*                          CA-Culprit PROCEDURE
//*****************************************************************************
//CULPO       EXEC      PGM=CULPO,REGION=320K,
//STEPLIB     DD        DSN=&IDSMLD,DISP=SHR
//SYS004      DD        SYSOUT=&PRINT,DCB=(RECFM=FBA,LRECL=133,
//                        BLKSIZE=133)
//SYS005      DD        DSN=&&UPRMWORK,UNIT=&UNIT,
//                        DISP=(NEW,PASS),
//                        SPACE=(CYL,(10,5),RLSE,
//                        DCB=(RECFM=F,LRECL=320,BLKSIZE=320)
//SYSCTL      DD        DSN=&SYSCTL,DISP=SHR
//*
//CULP1       EXEC      PGM=SORT,REGION=320K,PARM='MSG=AP'
//SORTLIB     DD        DSN=&SORTLIB,DISP=SHR
//SORTWK01    DD        UNIT=&UNIT,
```

```
//                        SPACE=(CYL,(5),,CONTIG)
//SORTWK02    DD          UNIT=&UNIT,
//                        SPACE=(CYL,(5),,CONTIG)
//SORTWK03    DD          UNIT=&UNIT,
//                        SPACE=(CYL,(5),,CONTIG)
//SORTWK04    DD          UNIT=&UNIT,
//                        SPACE=(CYL,(5),,CONTIG)
//SORTOUT     DD          DSN=&&SPRMWORK,UNIT=&UNIT,VOL=SER=&VOLSER,
//                        DISP=(NEW,PASS),
//                        SPACE=(CYL,(5),,CONTIG),
//                        DCB=(RECFM=F,LRECL=320,BLKSIZE=320)
//SYSOUT      DD          SYSOUT=&PRINT
//SYSPRINT    DD          SYSOUT=&PRINT
//SORTIN      DD          DSN=&&UPRMWORK,DISP=(OLD,DELETE)
//SYSIN       DD          DSN=&IDMSRC.(SORT1),DISP=SHR
//*
//CULP2       EXEC        PGM=CUL,REGION=320K,
//STEPLIB     DD          DSN=&IDSMLD,DISP=SHR
//SYS004      DD          SYSOUT=&ERML,DCB=(RECFM=FBA,LRECL=133,
//                        BLKSIZE=133)
//SYS005      DD          DSN=&&SPRMWORK,DISP=(OLD,DELETE)
//SYS006      DD          DSN=&&UEXTWORK,UNIT=&UNIT,
//                        DISP=(NEW,PASS),
//                        SPACE=(CYL,(10,5),RLSE),
//                        DCB=(RECFM=VB,LRECL=1000,BLKSIZE=1004)
//SYS008      DD          DSN=&&NSRTWORK,UNIT=&UNIT,
//                        DISP=(NEW,PASS),
//                        SPACE=(CYL,(10,5),RLSE,
//                        DCB=(RECFM=VB,LRECL=1000,BLKSIZE=1004)
//SYS007      DD          DSN=&&SRTPWORK,UNIT=&UNIT,
//                        DISP=(NEW,PASS),
//                        SPACE=(CYL,(10,5),RLSE),
//                        DCB=(RECFM=F,LRECL=80,BLKSIZE=80)
//SYS009      DD          DUMMY
//SYSJRNL     DD          DUMMY
//*
//CULP3       EXEC        PGM=SORT,REGION=320K,PARM='MSG=AP'
//SORTLIB     DD          DSN=&SORTLIB,DISP=SHR
//SORTWK01    DD          UNIT-&UNIT,
//                        SPACE=(CYL,(5),,CONTIG)
//SORTWK02    DD          UNIT=&UNIT,
//                        SPACE=(CYL,(5),,CONTIG)
//SORTWK03    DD          UNIT=&UNIT,
//                        SPACE=(CYL,(5),,CONTIG)
//SORTWK04    DD          UNIT=&UNIT,
//                        SPACE=(CYL,(5),,CONTIG)
//SORTOUT     DD          DSN=&&SEXTWORK,UNIT=&UNIT,VOL=SER=&VOLSER,
//                        DISP=(NEW,PASS),
//                        SPACE=(CYL,(15,5),RLSE),
//                        DCB=(RECFM=VB,LRECL=1000,BLKSIZE=1004)
//SYSOUT      DD          SYSOUT=&PRINT
//SYSPRINT    DD          SYSOUT=&PRINT
//SORTIN      DD          DSN=&&UEXTWORK,DISP=(OLD,DELETE)
```

```
//SYSIN       DD        DSN=&&SRTPWORK,DISP=(OLD,DELETE)
//*
//CULP4       EXEC      PGM=CULE,REGION=512K
//STEPLIB     DD        DSN=&IDSMLD,DISP=SHR
//SYS004      DD        SYSOUT=&PRINT,DCB=(RECFM=FBA,LRECL=133,
//                        BLKSIZE=133)
//SYS006      DD        DSN=&&SEXTWORK,DISP=(OLD,DELETE)
//SYS008      DD        DSN=&&NSRTWORK,DISP=(OLD,DELETE)
//SYS030      DD        SYSOUT=&PRINT,DCB=(RECFM=FBA,LRECL=133,
//                        BLKSIZE=133)
//SYS031      DD        SYSOUT=&PRINT,DCB=(RECFM=FBA,LRECL=133,
//                        BLKSIZE=133)
//SYS032      DD        SYSOUT=&PRINT,DCB=(RECFM=FBA,LRECL=133,
//                        BLKSIZE=133)
//SYS033      DD        SYSOUT=&PRINT,DCB=(RECFM=FBA,LRECL=133,
//                        BLKSIZE=133)
//SYS034      DD        SYSOUT=&PRINT,DCB=(RECFM=FBA,LRECL=133,
//                        BLKSIZE=133)
//SYS035      DD        SYSOUT=&PRINT,DCB=(RECFM=FBA,LRECL=133,
//                        BLKSIZE=133)
//SYS036      DD        SYSOUT=&PRINT,DCB=(RECFM=FBA,LRECL=133,
//                        BLKSIZE=133)
//SYS037      DD        SYSOUT=&PRINT,DCB=(RECFM=FBA,LRECL=133,
//                        BLKSIZE=133)
//SYS038      DD        SYSOUT=&PRINT,DCB=(RECFM=FBA,LRECL=133,
//                        BLKSIZE=133)
//SYS039      DD        SYSOUT=&PRINT,DCB=(RECFM=FBA,LRECL=133,
//                        BLKSIZE=133)
//SYS040      DD        SYSOUT=&PRINT,DCB=(RECFM=FBA,LRECL=133,
//                        BLKSIZE=133)
//SYS041      DD        SYSOUT=&PRINT,DCB=(RECFM=FBA,LRECL=133,
//                        BLKSIZE=133)
//SYS042      DD        SYSOUT=&PRINT,DCB=(RECFM=FBA,LRECL=133,
//                        BLKSIZE=133)
//SYS043      DD        SYSOUT=&PRINT,DCB=(RECFM=FBA,LRECL=133,
//                        BLKSIZE=133)
//SYS044      DD        SYSOUT=&PRINT,DCB=(RECFM=FBA,LRECL=133,
//                        BLKSIZE=133)
//SYS045      DD        SYSOUT=&PRINT,DCB=(RECFM=FBA,LRECL=133,
//                        BLKSIZE=133)
//SYS046      DD        SYSOUT=&PRINT,DCB=(RECFM=FBA,LRECL=133,
//                        BLKSIZE=133)
//SYSABEND    DD        DUMMY,OUTLIM=0
//SYSIN       DD        DUMMY,DCB=BLKSIZE=80
//                    PEND  ****  END OF PROCEDURE ****
```

Appendix B. External Request Element Extension

This appendix provides a description of the External Request Element (ERE) extension. Altering the ERE description is necessary if you want to tailor the CA-ID MS/Log Analyzer Billing Reports. To change the ERE extension you must alter GSISSVCX, USLBILX, and USLRPT5.

```
*---------------------------------------------------------------*
*    ERE LAYOUT (AS CREATED BY GSISVCX)                         *
*                                                               *
*    NOTE: THESE FIELDS ARE CONTAINED WITHIN                    *
*    THE LOG STATISTICS                                         *
*    TYPE '28' RECORD (TST - TASK - STATISTICS)                 *
*---------------------------------------------------------------*


         10    TST-STATS-BLOCK-ID
               15  TST-ERE
                   20  FILLER              PIC X(12).
                   20  TST-ERE-EXT-ONL.
                       25 TST-ERE-TRAN-ID              PIC X(4).
                       25 TST-ERE-TERM-ID              PIC X(4).
                       25 TST-ERE-OPER-ID              PIC X(3).
                   20  TST-ERE-EXT-BTC     REDEFINES
                       TST-ERE-EXT-ONL.
                       25 TST-ERE-ACCT     PIC X(11).
                   20  TST-ERE-ID          PIC X
                       88 TST-ERE-ONL      VALUE 'C'.
                       88 TST-ERE-BTC      VALUE 'B'.
                       88 TST-ERE-CICS     VALUE 'C'.
                       88 TST-ERE-DIALOGE              VALUE 'D'.
                   20  TST-ERE-JOB-NAME                PIC X(8).
                   20  TST-ERE-JOB-START.

     THE FOLLOWING DATE IS IN JULIAN FORMAT (OOYYDDD)
     FOR OS BATCH, THE TIME IS IN 24 HOUR FORMAT (HHMMSSTHTT)
               IE. DEVISION BY 10000 YIELDS HHMMSS
     FOR DOS BATCH/CICS, THE TIME IS IN UNITS OF 1/10000 SEC

                       25 TST-ERE-JOB-START-DATE   PIC S9(7) COMP-3
                       25 TST-ERE-JOB-START-TIME   PIC S9(9) COMP.
                   20  TST-PGM-NAME.
                       25 FILLER           PIC X(4).
                           88  TST-IDMS-PGM            VALUE 'IDMS'
                       25 FILLER           PIC X(4)
```

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